

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier**

**Product Name** Phenol:Chloroform:Isoamyl Alcohol

**Other means of identification**

**Product Code(s)** K169  
**UN/ID no.** 2810  
**Synonyms** No information available

**Recommended use of the chemical and restrictions on use**

**Recommended Use** For Further Manufacturing Use Only.  
**Uses advised against** Not for Human or Animal Drug Use

**Details of the supplier of the safety data sheet**

<b>Company Address</b>	<b>Manufacturer Address</b>
VWR International, LLC	VWR Chemicals, LLC
Radnor Corporate Center	28600 Fountain Parkway
100 Matsonford Road	Solon, Ohio 44139
Radnor, PA 19087-8660	
<b>Company Phone Number</b>	1-800-448-4442
<b>E-mail Address</b>	info@amresco-inc.com

**Emergency Telephone Number**

**Emergency Telephone Number** Chemtrec 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

**Classification**

**OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute Toxicity - Oral	Category 3
Acute Toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 3
Skin Corrosion/Irritation	Category 1 Sub-category B
Serious Eye Damage/Eye Irritation	Category 1
Germ cell mutagenicity	Category 2
Carcinogenicity	Category 1B
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 1
Specific target organ toxicity (repeated exposure)	Category 1

**Label elements**

**Emergency Overview**

<p><b>Danger</b></p> <p><b>Hazard statements</b>  H301 - Toxic if swallowed  H312 - Harmful in contact with skin  H331 - Toxic if inhaled  H314 - Causes severe skin burns and eye damage  H341 - Suspected of causing genetic defects  H350 - May cause cancer</p>
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H361 - Suspected of damaging fertility or the unborn child  
 H370 - Causes damage to organs  
 H372 - Causes damage to organs through prolonged or repeated exposure



**Appearance** Clear **Physical State** Liquid **Odor** Phenolic Medicinal

**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Use only outdoors or in a well-ventilated area  
 Do not breathe dust/fume/gas/mist/vapors/spray

**Precautionary Statements - Response**

Specific treatment (see .? on this label)  
 Immediately call a POISON CENTER or doctor  
 Specific treatment (see .? on this label)  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 Immediately call a POISON CENTER or doctor  
 Call a POISON CENTER or doctor if you feel unwell  
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower  
 Wash contaminated clothing before reuse  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing  
 Immediately call a POISON CENTER or doctor  
 IF SWALLOWED: Immediately call a POISON CENTER or doctor  
 Rinse mouth  
 Do NOT induce vomiting

**Precautionary Statements - Storage**

Store locked up  
 Store in a well-ventilated place. Keep container tightly closed

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not regulated

**Other Information**

- Toxic to aquatic life with long lasting effects
- Harmful to aquatic life

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No	EC No.	Weight %	Trade Secret
Phenol	108-95-2	203-632-7	40-50	Not applicable
Chloroform	67-66-3	200-663-8	40-50	Not applicable
Methanol	67-56-1	200-659-6	1-5	Not applicable
Isoamyl alcohol	123-51-3	204-633-5	1-5	Not applicable

#### 4. FIRST AID MEASURES

##### First Aid Measures

<b>Eye Contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin Contact</b>	Use copious amounts of glycerol or polyethylene glycol, then rinse off under running water. Repeat as necessary.
<b>Inhalation</b>	Move to fresh air. If not breathing, give artificial respiration.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. Rinse mouth.
<b>Protection of First-aiders</b>	Avoid contact with skin, eyes and clothing. Use personal protective equipment.

##### Most important symptoms and effects, both acute and delayed

**Most Important Symptoms/Effects** No information available.

##### Indication of any immediate medical attention and special treatment needed

**Notes to Physician** Treat symptomatically.

#### 5. FIRE-FIGHTING MEASURES

##### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media** No information available.

##### Specific Hazards Arising from the Chemical

No information available.

##### Explosion Data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

##### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### 6. ACCIDENTAL RELEASE MEASURES

##### Personal precautions, protective equipment and emergency procedures

**Personal protection** Ensure adequate ventilation, especially in confined areas.

##### Environmental Precautions

**Environmental Precautions** See Section 12 for additional Ecological information.

##### Methods and material for containment and cleaning up

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Cleaning Up** Cover with dry lime or soda ash. Pick up and transfer to properly labeled containers.

#### 7. HANDLING AND STORAGE

**Precautions for Safe Handling**

**Handling** Light Sensitive. Handle under red lights. Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from light.

**Incompatible Products** Strong oxidizing agents. Strong acids. Strong bases. Protect from light.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Phenol 108-95-2	TWA: 5 ppm	TWA: 5 ppm TWA: 19 mg/m <sup>3</sup>	IDLH: 250 ppm Ceiling: 15.6 ppm Ceiling: 60 mg/m <sup>3</sup> TWA: 5 ppm TWA: 19 mg/m <sup>3</sup>
Chloroform 67-66-3	TWA: 10 ppm	Ceiling: 50 ppm Ceiling: 240 mg/m <sup>3</sup>	IDLH: 500 ppm STEL: 2 ppm STEL: 9.78 mg/m <sup>3</sup>
Methanol 67-56-1	250 ppm STEL TWA: 200 ppm	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup>	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL: 250 ppm STEL: 325 mg/m <sup>3</sup>
Isoamyl alcohol 123-51-3	125 ppm STEL TWA: 100 ppm	TWA: 100 ppm TWA: 360 mg/m <sup>3</sup>	IDLH: 500 ppm TWA: 100 ppm TWA: 360 mg/m <sup>3</sup> STEL: 125 ppm STEL: 450 mg/m <sup>3</sup>

**Appropriate engineering controls**

**Engineering Measures** Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Safety glasses with side-shields. Avoid contact with eyes. Face-shield.

**Skin and Body Protection** Wear protective gloves/clothing.

**Respiratory Protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<b>Physical State</b>	Liquid	<b>Odor</b>	Phenolic Medicinal
<b>Appearance</b>	Clear	<b>Odor Threshold</b>	No information available
<b>Color</b>	No information available		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No information available	
Melting point/freezing point		
Boiling Point/Range	No information available	
Flash Point (High in °C)	No information available	
Evaporation Rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor Density	No information available	
Specific Gravity	No information available	
Water Solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition Temperature	No information available	
Decomposition Temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive Properties	No information available	
Oxidizing Properties	No information available	

**Other Information**

Softening Point	No information available
Molecular Weight	No information available
VOC Content	No information available
Density	No information available
Bulk Density	No information available

**10. STABILITY AND REACTIVITY**

**Reactivity**

No data available

**Chemical Stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to Avoid**

Protect from light.

**Incompatible Materials**

Strong oxidizing agents. Strong acids. Strong bases. Protect from light.

**Hazardous Decomposition Products**

None known based on information supplied.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Product Information**

<b>Inhalation</b>	Toxic by inhalation.
<b>Eye Contact</b>	Severely irritating to eyes.
<b>Skin Contact</b>	Harmful in contact with skin. Causes burns.
<b>Ingestion</b>	Toxic if swallowed.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Phenol 108-95-2	= 317 mg/kg ( Rat ) = 340 mg/kg ( Rat )	= 630 mg/kg ( Rabbit )	= 316 mg/m <sup>3</sup> ( Rat ) 4 h
Chloroform 67-66-3	= 450 mg/kg ( Rat ) = 695 mg/kg ( Rat )	> 20 g/kg ( Rabbit )	= 47702 mg/kg ( Rat ) 4 h = 47702 mg/m <sup>3</sup> ( Rat ) 4 h
Methanol 67-56-1	= 6200 mg/kg ( Rat )	= 15800 mg/kg ( Rabbit )	= 22500 ppm ( Rat ) 8 h = 64000 ppm ( Rat ) 4 h
Isoamyl alcohol 123-51-3	= 1300 mg/kg ( Rat )	= 3250 mg/kg ( Rabbit ) = 3970 µL/kg ( Rabbit )	-

**Information on toxicological effects**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** No information available.  
**Mutagenic Effects** No information available.  
**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Phenol 108-95-2	-	Group 3	-	-
Chloroform 67-66-3	A3	Group 2B	Reasonably Anticipated	X
Methanol 67-56-1	-	-	-	-
Isoamyl alcohol 123-51-3	-	-	-	-

**Reproductive Toxicity** No information available.  
**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.  
**Chronic Toxicity** Suspected carcinogen. Prolonged exposure may cause chronic effects.  
**Target Organ Effects** Liver, Kidneys, Eyes, Central nervous system (CNS), Skin, Heart.  
**Aspiration hazard** No information available.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document .

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

0.18% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Toxicity to Fish	Crustacea
Phenol 108-95-2	46.42: 96 h Pseudokirchneriella subcapitata mg/L EC50 0.0188 - 0.1044: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 187 - 279: 72 h Desmodesmus subspicatus mg/L EC50 static	5.449 - 6.789: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 11.9 - 25.3: 96 h Lepomis macrochirus mg/L LC50 flow-through 11.5: 96 h Lepomis macrochirus mg/L LC50 semi-static 27.8: 96 h Brachydanio rerio mg/L LC50 23.4 - 36.6: 96 h Oryzias latipes mg/L LC50 static 34.09 - 47.64: 96 h Poecilia reticulata mg/L LC50 static 32: 96 h Pimephales promelas mg/L LC50 7.5 - 14: 96 h Oncorhynchus mykiss mg/L LC50 static 4.23 - 7.49: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 0.00175: 96 h Cyprinus carpio mg/L LC50 semi-static 33.9 - 43.3: 96 h Oryzias latipes mg/L LC50 flow-through 11.9 - 50.5: 96 h	4.24 - 10.7: 48 h Daphnia magna mg/L EC50 Static 10.2 - 15.5: 48 h Daphnia magna mg/L EC50

		Pimephales promelas mg/L LC50 flow-through 20.5 - 25.6: 96 h Pimephales promelas mg/L LC50 static 13.5: 96 h Lepomis macrochirus mg/L LC50 static 31: 96 h Poecilia reticulata mg/L LC50 semi-static 5.0 - 12.0: 96 h Oncorhynchus mykiss mg/L LC50	
Chloroform 67-66-3	560: 48 h Desmodesmus subspicatus mg/L EC50	71: 96 h Pimephales promelas mg/L LC50 flow-through 18: 96 h Lepomis macrochirus mg/L LC50 flow-through 18: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 300: 96 h Poecilia reticulata mg/L LC50 static	29: 48 h Daphnia magna mg/L EC50
Methanol 67-56-1	-	28200: 96 h Pimephales promelas mg/L LC50 flow-through 18 - 20: 96 h Oncorhynchus mykiss mg/L LC50 static 13500 - 17600: 96 h Lepomis macrochirus mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50 static 19500 - 20700: 96 h Oncorhynchus mykiss mg/L LC50 flow-through	-
Isoamyl alcohol 123-51-3	181: 96 h Desmodesmus subspicatus mg/L EC50 493: 72 h Desmodesmus subspicatus mg/L EC50	700: 96 h Salmo gairdneri mg/L LC50 static	260: 48 h Daphnia magna mg/L EC50

**Persistence and Degradability**

No information available.

**Bioaccumulation/Accumulation**

No information available.

Chemical Name	Partition coefficient
Phenol 108-95-2	1.47
Chloroform 67-66-3	2
Methanol 67-56-1	-0.77
Isoamyl alcohol 123-51-3	1.28

**Other Adverse Effects**

No information available

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Waste Disposal Method**

Dispose of material in accordance with all federal, state, and local regulations.

**Contaminated Packaging**

Do not re-use empty containers.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Water 7732-18-5	-	-	-	-
TRIS 77-86-1	-	-	-	-

Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Phenol 108-95-2	-	-	-	-

Chloroform 67-66-3	Category I - Volatiles	-	-	-
Methanol 67-56-1	-	-	-	-
Isoamyl alcohol 123-51-3	-	-	-	-

Chemical Name	California Hazardous Waste Status
Phenol 108-95-2	Toxic; Corrosive
Chloroform 67-66-3	Toxic
Methanol 67-56-1	Toxic; Ignitable
Isoamyl alcohol 123-51-3	-

**14. TRANSPORT INFORMATION**

**DOT**

**UN/ID no.** 2810  
**Proper shipping name** Toxic Liquid, Organic, N.O.S. (Phenol/Chloroform Solution)  
**Hazard Class** 6.1  
**Packing Group** II

**IATA**

**UN/ID no.** 2810  
**Proper shipping name** Toxic Liquid, Organic, N.O.S. (Phenol/Chloroform Solution)  
**Hazard Class** 6.1  
**Packing Group** II

**15. REGULATORY INFORMATION**

**International Inventories**

**TSCA** Complies  
**DSL/NDSL** Complies  
**EINECS/ELINCS** Complies  
**ENCS** Does not Comply  
**IECSC** Complies  
**KECL** Complies  
**PICCS** Complies  
**AICS** Complies

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

**U.S. Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Component	SARA 313 - Threshold Values %
Phenol	1.0



108-95-2 ( 40-50 )	
Chloroform 67-66-3 ( 40-50 )	0.1
Methanol 67-56-1 ( 1-5 )	1.0
Isoamyl alcohol 123-51-3 ( 1-5 )	-

**SARA 311/312 Hazard Categories**

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

**Clean Water Act**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Phenol 108-95-2	1000 lb	X	X	X
Chloroform 67-66-3	10 lb	X	X	X
Methanol 67-56-1	-	-	-	-
Isoamyl alcohol 123-51-3	-	-	-	-

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Phenol 108-95-2	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ
Chloroform 67-66-3	10 lb	10 lb	RQ 10 lb final RQ RQ 4.54 kg final RQ
Methanol 67-56-1	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
Isoamyl alcohol 123-51-3	-	-	-

**U.S. State Regulations**

**California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
Phenol - 108-95-2	-
Chloroform - 67-66-3	Carcinogen Developmental
Methanol - 67-56-1	Developmental
Isoamyl alcohol - 123-51-3	-

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Phenol 108-95-2	X	X	X
Chloroform 67-66-3	X	X	X
Methanol 67-56-1	X	X	X
Isoamyl alcohol	X	X	X

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123-51-3			
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**U.S. EPA Label Information**

EPA Pesticide Registration Number Not regulated

**16. OTHER INFORMATION**

Issuing Date 30-Jun-2009

Revision Date 15-Mar-2016

**Revision Note**

No information available

**Disclaimer**

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. VWR International and its Affiliates shall not be held liable for any damage resulting from handling.

**End of Safety Data Sheet**