

# MATERIAL SAFETY DATA SHEET

Phenol

## SECTION 1 . Product and Company Identification

Product Name and Synonym: Phenol  
Product Code: P1953  
Material Uses:  
Manufacturer: Science Stuff  
1104 Newport Ave  
Austin, TX 78753  
(512) 837-6020  
Entry Date : 6/13/2013  
Print Date: 6/13/2013  
24 Hour Emergency Assistance : Chemtrec 800-424-9300  
Canutec 613-996-6666

Health:	3
Flammability:	2
Reactivity:	0

Hazard Rating:  
Least Slight Moderate High Extreme  
0 1 2 3 4

NA=Not Applicable NE=Not Established

## SECTION 2 HAZARD IDENTIFICATION

DANGER! POISON! CAUSES SEVERE EYE AND SKIN BURNS. HARMFUL IF INHALED OR ABSORBED THROUGH THE SKIN. VAPOR HARMFUL. MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. CANNOT BE MADE NONPOISONOUS. CAUSES SEVERE RESPIRATORY TRACT IRRITATION.

## SECTION 3 MIXTURE COMPONENTS

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
<input checked="" type="checkbox"/>	Phenol	CAS#: 108-95-2	100%	W/W	OSHA TWA 5 ppm (19 mg/mf)

## SECTION 4 FIRST AID MEASURES

DANGER! POISON! CAUSES SEVERE EYE AND SKIN BURNS. HARMFUL IF INHALED OR ABSORBED THROUGH THE SKIN. VAPOR HARMFUL. MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. CANNOT BE MADE NONPOISONOUS. CAUSES SEVERE RESPIRATORY TRACT IRRITATION.

FIRST AID: SKIN: In case of contact, immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. CALL A PHYSICIAN. Thoroughly clean clothing and shoes before reuse.

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: Give several glasses of milk or water. Vomiting may occur spontaneously, but DO NOT INDUCE! Never give anything by mouth to an unconscious person.

## SECTION 5 FIRE FIGHTING MEASURES

Fire Extinguisher Type: Water spray, Carbon dioxide, dry chemical, foam, alcohol, polymer foam.  
Fire / Explosion Hazards: emits toxic fumes under fire conditions.

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Fire Fighting Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

Evacuate area. Wear self-contained breathing apparatus and protective clothing (rubber boots and heavy rubber gloves). Cover with lime or soda. Keep in closed container and hold for disposal.

**SECTION 7 HANDLING AND STORAGE**

Store in a cool dry well ventilated area. Keep away from heat and flame. Do not get in eyes, on skin, or on clothing.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

Respiratory Protection: NIOSH/MSHA-approved respirator

Ventilation

Local Exhaust

Mechanical

Protective Gloves: chemical resistant, heavy rubber.

Eye Protection: safety goggles

Other Protective Equipment: rubber boots, protective clothing, safety shower and eye wash.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

Melting Point:	104-106° F (40 - 42°C)	Percent Volatile by Volume:	information not available
Boiling Point:	359.6° F	Evaporation Rate	information not available
Vapor Pressure:	0.36	Evaporation Standard	not available
Vapor Density:	3.24	Auto Ignition Temp	715°C
Solubility in Water:	information not available	Lower Flamm. Limit in Air	1.7%
Appearance /Odors:	White crystals with distinct odor	Upper Flamm. Limit in Air	8.6%
Flash Point:	174.2° F (79°C)		
Specific Gravity:	1.071		

**SECTION 10 STABILITY AND REACTIVITY INFORMATION**

Stability:	yes
Conditions to Avoid:	Heat, open flame, and light
Materials to Avoid:	Strong oxidizing agents, bases, and acids
Hazardous Decomposition Products:	Carbon oxides, carbon dioxide
Hazardous polymerization:	Will Not Occur

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Conditions to Avoid: None known

**SECTION 11 Toxicological Information**

Acute toxicity  
Phenol LD50 Dermal Rat 1500 mg/kg  
LD50 Dermal Rat 669 mg/kg  
LD50 Dermal Rabbit 630 mg/kg  
LD50  
Intraperitoneal  
Rat 127 mg/kg  
LD50 Oral Rat 317 mg/kg  
LD50 Oral Rat 512 mg/kg  
LD50 Oral Mouse 270 mg/kg  
LD50 Oral Mammal 500 mg/kg  
LD50  
Subcutaneous  
Rat 300 mg/kg  
LDLo Oral Rabbit 420 mg/kg  
LDLo Oral Cat 80 mg/kg  
LDLo Oral Infant 10 mg/kg  
LC50 Inhalation  
Vapor  
Rat 316 mg/m<sup>3</sup>  
Product/ingredient name Test Route Species Result  
Carcinogenicity  
Mutagenicity  
Teratogenicity  
  
Classification  
Phenol A4 3 - - - -  
No known significant effects or critical hazards.  
Product/ingredient name ACGIH IARC EPA NIOSH NTP OSHA  
No known significant effects or critical hazards.  
No known significant effects or critical hazards.

**SECTION 12 Ecological Information**

Aquatic ecotoxicity  
Product/ingredient name  
Phenol Acute EC50 6.6 mg/L Daphnia 48 hours  
Acute EC50 5.55 mg/L Daphnia 48 hours  
Acute EC50 5.5 to 6.4  
mg/L Fresh water  
Daphnia - Water flea -  
Daphnia obtusa - Neonate -  
<24 hours  
48 hours  
Acute EC50 4.2 mg/L Daphnia 48 hours  
Acute EC50 5550 to 6330  
ug/L Fresh water  
Daphnia - Water flea -  
Daphnia magna - LARVAE  
48 hours  
Acute EC50 4240 to  
10700 ug/L Fresh water  
Daphnia - Water flea -  
Daphnia magna - <24 hours  
48 hours  
Acute EC50 4200 ug/L  
Fresh water  
Daphnia - Water flea -  
Daphnia magna - <24 hours  
48 hours  
Acute LC50 11 to 22 ppm  
Marine water  
Crustaceans - Daggerblade  
grass shrimp -  
Palaemonetes pugio - Adult  
48 hours  
Acute LC50 6810 to 8910  
ug/L Marine water  
Crustaceans - Mysid -

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Archaeomysis kokuboi -  
Adult  
48 hours  
Acute LC50 6650 ug/L  
Fresh water  
Fish - Asiatic knifefish -  
Notopterus notopterus - 9  
cm - 20.6 g  
96 hours  
Acute LC50 6082 to 6789  
ug/L Fresh water  
Fish - Rainbow  
trout,donaldson trout -  
Oncorhynchus mykiss - 15  
weeks - 370 mg  
96 hours  
Acute LC50 6000 ug/L  
Fresh water  
Crustaceans - Water flea -  
Sida crystallina  
48 hours  
Acute LC50 5.02 mg/L Fish 96 hours  
Acute LC50 5020 to 7490  
ug/L Fresh water  
Fish - Rainbow  
trout,donaldson trout -  
Oncorhynchus mykiss -  
Juvenile (Fledgling,  
Hatchling, Weanling) - 0.69  
g  
96 hours  
Acute LC50 4650 to 6300  
ug/L Fresh water  
Daphnia - Water flea -  
Ceriodaphnia dubia -  
Neonate  
48 hours  
Acute LC50 4470 to 5410  
ug/L Fresh water  
Daphnia - Water flea -  
Ceriodaphnia dubia -  
Neonate  
48 hours  
Acute LC50 4300 to 5400  
ug/L Fresh water  
Daphnia - Water flea -  
Ceriodaphnia dubia -  
Neonate  
48 hours  
Acute LC50 4 mg/L Daphnia 96 hours  
Acute LC50 0.00175 mg/L Fish 96 hours  
  
ug/L Fresh water Ceriodaphnia dubia -  
Neonate  
Acute LC50 3480 to 4510  
ug/L Marine water  
Crustaceans - Mysid -  
Archaeomysis kokuboi -  
Juvenile (Fledgling,  
Hatchling, Weanling)  
48 hours  
Acute LC50 3100 ug/L  
Fresh water  
Daphnia - Water flea -  
Ceriodaphnia dubia -  
Neonate - <12 hours  
48 hours  
Acute LC50 3000 to 4100  
ug/L Fresh water  
Daphnia - Water flea -  
Ceriodaphnia dubia - <24  
hours

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48 hours  
Acute LC50 2480 ug/L  
Fresh water  
Fish - Asiatic knifefish -  
Notopterus notopterus - 8.5  
to 10.2 cm - 14.5 to 21.4 g  
96 hours  
Acute LC50 1555 ug/L  
Fresh water  
Fish - Carp, hawk fish -  
Cirrhinus mrigala - LARVAE  
- 2 days - 4.5 mm - 51 mg  
96 hours  
Acute LC50 1450 to 1860  
ug/L Marine water  
Crustaceans - Mysid -  
Archaeomysis kokuboi -  
Juvenile (Fledgling,  
Hatchling, Weanling)  
48 hours  
Acute LC50 800 to 980  
ug/L Marine water  
Crustaceans - Mysid -  
Archaeomysis kokuboi -  
Juvenile (Fledgling,  
Hatchling, Weanling)  
48 hours  
Acute LC50 6850 ug/L  
Fresh water  
Fish - Asiatic knifefish -  
Notopterus notopterus - 9  
cm - 20.6 g  
96 hours  
Acute LC50 11830 to  
15760 ug/L Marine water  
Crustaceans - Giant river  
prawn - Macrobrachium  
rosenbergii - LARVAE  
48 hours  
Acute LC50 11000 ug/L  
Marine water  
Crustaceans - Daggerblade  
grass shrimp -  
Palaemonetes pugio  
48 hours  
Acute LC50 10000 to  
33000 ug/L Marine water  
Crustaceans - Common  
shrimp, sand shrimp -  
Crangon crangon - LARVAE  
48 hours  
Acute LC50 8800 ug/L  
Fresh water  
Crustaceans - Harpacticoid  
copepod - Canthocamptus  
sp. - LARVAE  
48 hours  
Acute LC50 8150 to 8250  
ug/L Fresh water  
Fish - Asiatic knifefish -  
Notopterus notopterus - 7  
days - 0.8 to 1.1 cm - 240 to  
260 mg  
96 hours  
Acute LC50 8150 ug/L  
Fresh water  
Fish - Asiatic knifefish -  
Notopterus notopterus - 4.5  
cm  
96 hours  
Acute LC50 1.75 ug/L  
Fresh water

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Fish - Cyprinus carpio -  
LARVAE - 8 mm  
96 hours  
Acute LC50 7700 ug/L  
Fresh water  
Fish - Rainbow  
trout,donaldson trout -  
Oncorhynchus mykiss - 7.14  
cm - 4.74 g  
96 hours  
Other adverse effects : No known significant effects or critical hazards.

**SECTION 13 Disposal Considerations**

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

**SECTION 14 Transport Information**

DOT Classification PHENOL, 6.1, SOLID II  
Regulatory information  
UN number Proper shipping name  
Classes PG\* Label Additional information  
UN1671  
14 .  
PG\* : Packing group  
Reportable quantity  
1000 lbs. (454 kg)

DOT Classification: UN1671, Phenol, Solid, 6.1, PG II

DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

**SECTION 15 Regulatory Information**

HCS Classification  
Regulatory information  
U.S. Federal regulations United States inventory (TSCA 8b): This material is listed or exempted.  
TSCA 8(d) H and S data reporting: Phenol: 1987  
TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.  
Clean Water Act (CWA) 307: Phenol  
Clean Water Act (CWA) 311: Phenol  
Clean Air Act (CAA) 112 accidental release prevention: No products were found.  
Clean Air Act (CAA) 112 regulated flammable substances: No products were found.  
Clean Air Act (CAA) 112 regulated toxic substances: No products were found.  
SARA 302/304/311/312 extremely hazardous substances: Phenol  
SARA 302/304 emergency planning and notification: Phenol  
SARA 302/304/311/312 hazardous chemicals: Phenol  
SARA 311/312 MSDS distribution - chemical inventory - hazard identification:  
Phenol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard  
:  
SARA 313  
:  
United States  
Product name CAS number Concentration  
SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.  
15 .  
Phenol 108-95-2 100  
Phenol 108-95-2 100  
Form R - Reporting

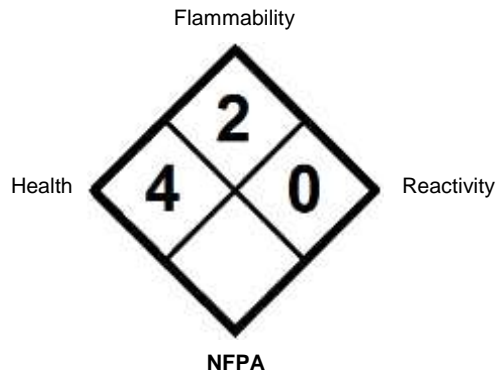
requirements  
 Supplier notification  
 :  
 :  
 :  
 DEA List I Chemicals  
 (Precursor Chemicals)  
 : Not listed  
 DEA List II Chemicals  
 (Essential Chemicals)  
 : Not listed  
 Massachusetts Substances : This material is listed.  
 New Jersey Hazardous  
 Substances  
 : This material is listed.  
 New York Acutely  
 Hazardous Substances  
 : This material is listed.  
 Pennsylvania RTK  
 Hazardous Substances

WHMIS (Canada) Class B-4: Flammable solid.  
 Class D-1A: Material causing immediate and serious toxic effects (Very toxic).  
 Class E: Corrosive material  
 International regulations  
 International lists  
 :  
 :  
 Canada  
 CEPA Toxic substances: This material is not listed.  
 Canadian ARET: This material is not listed.  
 Canadian NPRI: This material is listed.  
 Alberta Designated Substances: This material is not listed.  
 Ontario Designated Substances: This material is not listed.  
 Quebec Designated Substances: This material is not listed.  
 Australia inventory (AICS): This material is listed or exempted.  
 China inventory (IECSC): This material is listed or exempted.  
 Japan inventory (ENCS): This material is listed or exempted.  
 Japan inventory (ISHL): Not determined.  
 Korea inventory (KECI): This material is listed or exempted.  
 New Zealand Inventory of Chemicals (NZIoC): This material is listed or exempted.  
 Philippines inventory (PICCS): This material is listed or exempted.  
 WHMIS (Canada) Class B-4: Flammable solid.  
 Class D-1A: Material causing immediate and serious toxic effects (Very toxic).  
 Class E: Corrosive material  
 International regulations  
 International lists  
 :  
 :  
 Canada  
 S1/2- Keep locked up and out of the reach of children.  
 S24/25- Avoid contact with skin and eyes.  
 S26- In case of contact with eyes, rinse immediately with plenty of water and seek  
 medical advice.  
 S28- After contact with skin, wash immediately with plenty of [\*\*\*].  
 S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.  
 S45- In case of accident or if you feel unwell, seek medical advice immediately (show the  
 label where possible).  
 R68- Possible risk of irreversible effects.  
 R23/24/25- Toxic by inhalation, in contact with skin and if swallowed.  
 R48/20/21/22- Harmful: danger of serious damage to health by prolonged exposure  
 through inhalation, in contact with skin and if swallowed.  
 R34- Causes burns.  
 Risk phrases  
 EU regulations  
 Safety phrases  
 :  
 :  
 :  
 Hazard symbol or symbols :  
 This product has been classified in accordance with the hazard criteria of the Controlled  
 Products Regulations and the  
 MSDS contains all the information required by the Controlled Products Regulations.  
 Canadian lists :  
 CEPA DSL / CEPA NDSL : This material is listed or exempted.

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SECTION 16

Additional Information



Revisions

0.1

Creation date LS

The information herein is believed to be accurate and is offered in good faith for the user's consideration and investigation. No warranty either expressed or implied is made for the completeness or accuracy of the information whether originating from the above mentioned company or not. Users of this material should satisfy themselves by independent investigation of current scientific and medical knowledge that the material can be used safely.