

MATERIAL SAFETY DATA SHEET

Phenol, Liquefied

SECTION 1 . Product and Company Identification

Product Name and Synonym: Phenol, Liquefied
Product Code: P1955
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

May be fatal if inhaled, swallowed or absorbed thru the skin Avoid all contact. Use with adequate ventilation. Wash thoroughly after use. Keep container closed.

SECTION 3 MIXTURE COMPONENTS

| SARA 313 | Component | CAS Number | Percent Comp. | Dimension | Exposure Limits |
|-------------------------------------|-------------------------------|----------------|---------------|-----------|---------------------------|
| <input checked="" type="checkbox"/> | Phenol | CAS#: 108-95-2 | ~88% | W/W | OSHA TWA 5 ppm (19 mg/mf) |
| <input type="checkbox"/> | Water, Deionized ASTM Type II | CAS# 7732-18-5 | Balance | W/W | None Established |

SECTION 4 FIRST AID MEASURES

May be fatal if inhaled, swallowed or absorbed thru the skin Avoid all contact. Use with adequate ventilation. Wash thoroughly after use. Keep container closed.

FIRST AID: CALL A PHYSICIAN. SKIN: Remove contaminated clothing. Wash exposed area with soap and water.

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: If swallowed, induce vomiting immediately after giving two glasses of water. 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.
Fire Fighting Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

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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. Do not store above 8°C (46.4°F). 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: | Information not available | Percent Volatile by Volume: | Information not available |
| Boiling Point: | ~100°C | Evaporation Rate | Information not available |
| Vapor Pressure: | 2.3 kPa (@ 20°C) | Evaporation Standard | not available |
| Vapor Density: | 0.62 | Auto Ignition Temp | information not available |
| Solubility in Water: | Soluble | Lower Flamm. Limit in Air | information not available |
| Appearance /Odors: | Clear to light pink liquid, medicinal odor | Upper Flamm. Limit in Air | information not available |
| Flash Point: | 79°C | | |
| Specific Gravity: | 1.05 | | |

SECTION 10 STABILITY AND REACTIVITY INFORMATION

Stability: Stable
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
Conditions to Avoid: None known

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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/m³
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 -
Archaeomysis kokuboi -

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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
48 hours

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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
Fish - Cyprinus carpio -

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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: UN2821, Phenol Solution, 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

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: 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

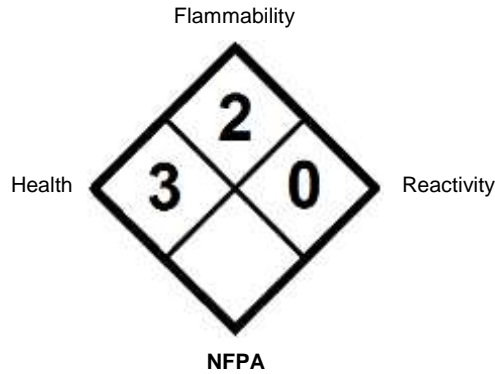
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Hazard symbol or symbols :
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.
Canadian lists :
CEPA DSL / CEPA NDSL : This material is listed or exempted.

SECTION 16

Additional Information

Phenol, Liquefied



Revisions

| | | |
|----------|-----|---------------------------|
| 5/7/2013 | 0.1 | Revised to 16 sections LS |
| 3/4/2009 | 0 | 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.