SAFETY DATA SHEET

Preparation Date: 11/06/2013 **Revision Date:** 11/06/2013 **Revision Number:** G1

1. IDENTIFICATION

Product identifier

Product code: P1060
Product Name: PHENOL, LOOSE CRYSTAL, REAGENT, ACS

Other means of identification

Synonyms: Monohydroxybenzene;
Benzenol;
Phenyl hyroxide;
Phenylic acid;
Carbolic acid
Hydroxybenzene;
Monophenol;
Oxybenzene;
Phenic acid;
Phenylic alcohol
Phenyl hydrate
CAS #: 108-95-2
RTECS # SJ3325000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Disinfectant. To induce cutaneous exfoliation. A local anesthetic (in weak solutions).
Uses advised against No information available

Supplier: Spectrum Chemicals and Laboratory Products, Inc.
14422 South San Pedro St.
Gardena, CA 90248
(310) 516-8000
Order Online At: https://www.spectrumchemical.com

Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Regina Wachenheim (East Coast)

2. HAZARDS IDENTIFICATION

Classification

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

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 3
Acute toxicity - Inhalation (Gases)	Category 3
Acute toxicity - Inhalation (Vapors)	Category 1
Acute toxicity - Inhalation (Dusts/Mists)	Category 3

Skin corrosion/irritation	Category 1Sub-category B
Serious eye damage/eye irritation	Category 1
Germ cell mutagenicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 2

Label elements

Danger

Hazard statements
Harmful if swallowed
Toxic in contact with skin
Fatal if inhaled
Causes severe skin burns and eye damage
Suspected of causing genetic defects
May cause damage to organs through prolonged or repeated exposure

Hazards not otherwise classified (HNOC)
Not Applicable

Other hazards
Not available

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
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
Wear respiratory protection

Precautionary Statements - Response
Specific treatment (see .? on this label)
Specific treatment is urgent (see .? on this label)
Immediately call a POISON CENTER or doctor/physician
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/physician.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %	Trade Secret
Phenol 108-95-2	108-95-2	100	*

4. FIRST AID MEASURES

First aid measures

General Advice: Poison information centres in each State capital city can provide additional assistance for scheduled poisons (13 1126). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. First aider needs to protect himself.

Skin Contact: Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for at least 15 minutes. Remove all contaminated clothes and shoes. Immediate medical attention is required. Call a physician immediately.

Eye Contact: Flush eye with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. Call a physician immediately.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Call a physician or Poison Control Centre immediately.

Most important symptoms and effects, both acute and delayed

Symptoms Severe skin and eye irritation or burns. May cause gastrointestinal (digestive) tract burns. Can burn mouth, throat, and stomach. Dyspnea (Shortness of breath and difficulty breathing). Rapid breathing. May cause build-up of fluid in the lungs (pulmonary edema). May cause methemoglobinemia and cyanosis. May cause central nervous system effects. Pallor. Excessive sweating. Hypotension. Cardiac arrhythmias. Pupilary dilation.

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Dry chemical. Carbon dioxide (CO2). Water spray mist or foam. Alcohol-resistant foam.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products: Carbon monoxide; Carbon dioxide

Specific hazards: Combustible material. Containers may explode when heated. Contact with metals may evolve flammable hydrogen gas. When heated, vapors may form explosive mixtures with air: indoors, outdoors and sewers explosion hazards.

Special Protective Actions for Firefighters

Specific Methods: Dike fire-control water for later disposal; do not scatter the material. For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out.

Special Protective Equipment 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 Precautions: Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Remove all sources of ignition. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protective equipment. Avoid contact with skin, eyes and clothing.

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. Do not let product enter drains. Should not be released into the environment.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:
Use only in area provided with appropriate exhaust ventilation. Keep away from open flames, hot surfaces and sources of ignition. Keep away from incompatible materials.

Safe Handling Advice:
Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Do not breathe vapours/dust. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:
Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Air sensitive. Protect from moisture. Moisture sensitive. Protect from light. Sensitive to light. Store in light-resistant containers. Store in a segrated and approved area. Store away from incompatible materials.

Incompatible Materials:
Oxidizing agents. Metals. Acids. Bases. isocyanates. nitrides. Acetaldehyde. amides. Formaldehyde. aliphatic amines.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Phenol - 108-95-2	5 ppm TWA 19 mg/m^3 TWA	5 ppm TWA 19 mg/m^3 TWA 15.6 ppm Ceiling 15 min 60 mg/m^3 Ceiling 15 min	5 ppm TWA	None

Canada

Components	Alberta	British Columbia	Ontario	Quebec
Phenol - 108-95-2	5 ppm TWA 19 mg/m^3 TWA	5 ppm TWA	5 ppm TWA	5 ppm TWAEV 19 mg/m^3 TWAEV

Australia and Mexico

Components	Australia	Mexico
Phenol 108-95-2	1 ppm TWA 4 mg/m^3 TWA	5 ppm TWA 19 mg/m^3 TWA 10 ppm STEL 38 mg/m^3 STEL

Appropriate engineering controls

Engineering measures to reduce exposure: Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment
Personal Protective Equipment

Eye protection: Goggles. Safety glasses with side-shields.

Skin and body protection: Chemical resistant protective suit. Gloves. boots.

Respiratory protection: Respirator with combination filter for vapor/particulate..

Hygiene measures: Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands and face before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

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Physical state:
Solid.

Appearance:
Crystals. Crystalline.

Color:
White.

Odor:
Aromatic. Acrid. Somewhat sickening sweet.

Taste
Sharp. Burning.

Formula:
C6H5OH

Molecular/Formula weight:
94.11

Flash point (°C):
79

Flashpoint (°C/°F):
79 °C/174.2°F
85 °C/185 °F

Flash Point Tested according to:
Closed cup
Open cup

Lower Explosion Limit (%):
1.7%

Upper Explosion Limit (%):
8.6%

Autoignition Temperature (°C/°F):
715 °C/1319 °F

pH:
No information available

Melting point/range(°C/°F):
41-42 °C/105.8107.6 °F

Boiling point/range(°C/°F):
182 °C/359.6 °F

Decomposition temperature(°C/°F):
No information available

Specific gravity:
1.057

Density (g/cm3):
1.071

Bulk density:
No information available

Vapor pressure @ 20°C (kPa):
0.02-0.048

Evaporation rate:
No information available

Vapor density:
3.24

VOC content (g/L):
No information available

Odor threshold (ppm):
0.048

Partition coefficient (n-octanol/water):
1.46

Viscosity:
No information available

Miscibility:
Miscible with Acetone

Solubility:
Very soluble in alcohol
Very soluble in chloroform
Very soluble in Ether
Very soluble in Glycerin
Very soluble in carbon disulfide
Very soluble in petrolatum
Very soluble in aqueous alkali hydroxides
Very soluble in volatile and fixed oils
Soluble in Water
Solubility in Water: 1 g/15 ml @ 20 °C; 82.8 g/l @25 °C

10. STABILITY AND REACTIVITY

Reactivity

10. STABILITY AND REACTIVITY

Contact of phenol with peroxodisulfuric acid may cause explosion
The combination of phenol with acetaldehyde results in violent condensaton
The combination of phenol with 1,3-butadiene, and born trifluoride diethyl ether complex results in an intense exothermic reaction
The combination of phenol with isocyanates results in heat generation and violent polymerization
The combination of phenol with nitrides results in heat and flammable gas generation
Violent reaction with aluminum chloride and nitromethane at 110 deg. C.
Hot phenol reacts with metals
A combination of phenol with mineral oxidizing acids results in fire
Violent reaction with phenol and aluminum chloride + nitrobenzene at 120 deg. C.
Potential for an explosive reacton exists when phenol comes into contact with formaldehyde or sodium nitrate + trifluoroacetic acid
Mixtures of air and 3-10% phenol are explosive
Phenol + sodiuim nitrite causes explosion on heating
When heated, phenol evolves flammable vapors which will form explosive mixtures with air
Phenol + calcium hypochlorite results in an exothermic reaction producing toxic fumes whic hmay ignite

Chemical stability

Stability: Stable at normal conditions

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Exposure to light. Turns pink or red on exposure to light. Exposure to air. Exposure to moisture. Incompatible materials.

Incompatible Materials: Oxidizing agents. Metals. Acids. Bases. isocyanates. nitrides. Acetaldehyde. amides. Formaldehyde. aliphatic amines.

Hazardous decomposition products: Carbon monoxide. Carbon dioxide.

Other Information

Corrosivity: Severe corrosive effect on Brass. Minor corrosive effect on bronze.

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Ingestion. Inhalation. Skin.

Acute Toxicity

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

ATEmix (inhalation-gas) 700mg/l
ATEmix (inhalation-dust/mist) 0.5mg/l

Component Information

Phenol - 108-95-2

LD50/oral/rat = 317mg/kg
LD50/oral/mouse = 270 mg/kg
LD50/dermal/rabbit = 630 mg/kg Dermal LD50 Rabbit
LD50/dermal/rat = 525 mg/kg Dermal LD50 Rat
669 mg/kg
LC50/inhalation/rat = 316 mg/m^3 4 h

LC50/inhalation/mouse = No infomation available
Other LD50 or LC50information =
No information available

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = 317mg/kg

LD50/oral/mouse =
Value - Acute Tox Oral = 270mg/kg

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = 630mg/kg

LD50/dermal/rat
VALUE -Acute Tox Dermal = 525mg/kg

LC50/inhalation/rat
VALUE-Vapor = 0.32mg/l (4-hr)
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact:	Causes skin burns. Phenol burns may be severe, but painless due to damage to the nerve endings causing numbness. The skin may turn white and opaque or dull gray and wrinkled. Later, it may turn gray-white or yellowish brown and may be deeply eroded and scarred. Black Gangrene may occur at the sight of contact. It may be absorbed through the skin. If absorbed through skin it may cause systemic effects. Toxic in contact with skin. If absorbed through the skin it may affect behavior/central nervous system and cause central nervous system effects. If absorbed through the skin, it may affect the liver and kidneys (nephritis, hematuria) and may induce cardiac arrhythmias.
Eye Contact:	Causes eye burns. Corrosive to the eyes and may cause severe damage including blindness.
Inhalation	Severely irritating to the upper respiratory tract. It can irritate the lungs. It may cause pulmonary edema. Can cause dyspnea (shortness of breath and difficulty breathing). May affect respiration (respiratory depression). May affect behavior/central nervous system (somnolence). Inhalation of large amounts of vapor may be fatal. Volatility is low at room temperature, but hazard increases as temperature rises. Harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20 deg. C. Inhalation of large quantities can cause system effects similar to that of ingestion.

Ingestion	Harmful if swallowed. Causes digestive or gastrointestinal tract burns. Corrosive to the mouth, throat, and stomach. There is burning pain in the mouth and throat as well as white necrotic lesions in the mouth, esophagus and stomach. Ingestion may cause nausea, vomiting, diarrhea. May cause loss of appetite. May cause abdominal pain. May cause gastrointestinal bleeding. May cause pallor. May cause excessive sweating. May cause hemolytic anemia. May cause metabolic acidosis. May affect the cardiovascular system (hypotension). May cause methemoglobinemia, (the formation of methemoglobin in the blood which causes deficient oxygenation of the blood due to decreased available hemoglobin). Signs and symptoms of methemoglobinemia include shortness of breath, cyanosis (a bluish discoloration of the mucous membranes and unpigmented areas of the body), mental status changes such as headache, mental impairment, fatigue, muscular weakness, exercise intolerance, lightheadness, dizziness, incoordination, seizures, and loss of consciousness. Arterial blood with elevated methemoglobin levels has a characteristic chocolate-brown color as compared to normal bright red oxygen containing arterial blood. Severe methemoglobinemia is characterized by bradycardia or tachydardia (slow or fast heart beat), dysrhythmias, seizures, coma and death. It may cause central nervous system depression. May affect behavior/central nervous system (convulsions). May affect behavior/central nervous system (tremors). May affect behavior/central nervous system (dizziness, headache). May affect behavior/central nervous system (hallucinations, drowsiness, nervousness, twitching, delirium). May affect respiration (dyspnea - difficulty breathing and shortness of breath). May affect respiration (tachypnea (rapid breathing)). May cause tinnitus. May cause pupilary dilation. May affect eyes (pinpoint pupils). May cause dim vision. May affect urinary system (kidneys). May affect liver .
Aspiration hazard	No information available

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

Chronic Toxicity	Prolonged or repeated inhalation may cause bronchitis with coughing, phlegm, and/or shortness of breath. Prolonged or repeated ingestion may affect the liver, and kidneys. Prolonged or repeated ingestion may affect the liver (jaundice, liver function tests impaired). Prolonged or repeated ingestion may affect the blood (changes in red blood cell count). Prolonged or repeated ingestion may affect behavior/central nervous system. Prolonged or repeated ingestion may affect the cardiovascular system. Prolonged or repeated ingestion may affect the brain. Prolonged or repeated inhalation may affect the liver. Prolonged or repeated inhalation may affect the kidneys. Prolonged or repeated inhalation may affect the cardiovascular system. Prolonged or repeated ingestion may affect the blood (anemia). Prolonged or repeated inhalation may affect the blood (changes in serum composition). Signs and symptoms of chronic inhalation exposure may incllude headache, cough, weakness, fatigue, anorexia, vomiting, insomnia, nervousness, weight loss, paresthesia, ochronosis, and albuminuria. Other signs and symptoms of chronic exposure to phenol include vertigo, muscle aches and weakness, dark urine, nephritis, and hepatitis.
Sensitization:	No information available
Mutagenic Effects:	May affect genetic material Animal experiments showed mutagenic effects Mutagenic effects in mammalian somatic cells Experiments with human lymphocytes have shown mutagenic effects Experiments with animal lymphocytes have shown mutagenic effects Mutations in microorganisms
Carcinogenic effects:	Not classifiable as to its carcinogenicity to humans. Not classifiable as a human carcinogen.

Components	ACGIH - Carcinogens	IARC	NTP	OSHA HCS - Carcinogens	Australia - Prohibited Carcinogenic Substances	Australia - Notifiable Carcinogenic Substances
Phenol	A4 Not Classifiable as a Human Carcinogen	Group 3-Monograph 71 [1999] Monograph 47 [1989]	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)
A4 - Not Classifiable as a Human Carcinogen
IARC (International Agency for Research on Cancer)
Not classifiable as a human carcinogen

Reproductive toxicity No data is available

Reproductive Effects: No information on reproductive toxicity effects on humans was found
Developmental Effects: There is limited evidence that Phenol may damage the developing fetus in animals. No information on developmental toxicity effects on humans was found.
Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available
STOT - repeated exposure May cause damage to organs through prolonged or repeated exposure.
Target Organs: Central nervous system. Cardiovascular system. Heart. Kidneys. Liver. Eyes. Skin. Respiratory system. Lungs. Blood. Methemoglobin formation.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Aquatic environment.

Phenol - 108-95-2
Freshwater Algae Data: 0.0188 - 0.1044 mg/L EC50 Pseudokirchneriella subcapitata 96 h
187 - 279 mg/L EC50 Desmodesmus subspicatus 72 h
46.42 mg/L EC50 Pseudokirchneriella subcapitata 96 h
Freshwater Fish Species Data: 11.9 - 25.3 mg/L LC50 Lepomis macrochirus 96 h flow-through 1
11.9 - 50.5 mg/L LC50 Pimephales promelas 96 h flow-through 1
20.5 - 25.6 mg/L LC50 Pimephales promelas 96 h static 1
23.4 - 36.6 mg/L LC50 Oryzias latipes 96 h static 1
33.9 - 43.3 mg/L LC50 Oryzias latipes 96 h flow-through 1
34.09 - 47.64 mg/L LC50 Poecilia reticulata 96 h static 1
4.23 - 7.49 mg/L LC50 Oncorhynchus mykiss 96 h semi-static 1
5.0 - 12.0 mg/L LC50 Oncorhynchus mykiss 96 h 1
5.449 - 6.789 mg/L LC50 Oncorhynchus mykiss 96 h flow-through 1
7.5 - 14 mg/L LC50 Oncorhynchus mykiss 96 h static 1
0.00175 mg/L LC50 Cyprinus carpio 96 h semi-static 1
11.5 mg/L LC50 Lepomis macrochirus 96 h semi-static 1
13.5 mg/L LC50 Lepomis macrochirus 96 h static 1
27.8 mg/L LC50 Brachydanio rerio 96 h 1
31 mg/L LC50 Poecilia reticulata 96 h semi-static 1
32 mg/L LC50 Pimephales promelas 96 h 1
Water Flea Data: 10.2 - 15.5 mg/L EC50 Daphnia magna 48 h
4.24 - 10.7 mg/L EC50 Daphnia magna 48 h

Phenol - 108-95-2

Persistence and degradability: No information available

Bioaccumulative potential: No information available

Mobility: No information available

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Phenol	None	None	None	U188

14. TRANSPORT INFORMATION

DOT

UN-No: UN1671
Proper Shipping Name: Phenol, solid
Hazard Class: 6.1
Subsidiary Risk: Not applicable
Packing Group: II
Marine Pollutant No data available
ERG No: 153
DOT RQ (lbs): No information available
Symbol(s): +, R4

TDG (Canada)

UN-No: UN1671
Proper Shipping Name: Phenol, solid
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: II
Description: No information available

ADR

UN-No: UN1671
Proper Shipping Name: Phenol, solid
Hazard Class: 6.1
Packing Group: II
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available
CEFIC Tremcard No: No information available

14. TRANSPORT INFORMATION

IMO / IMDG

UN-No: UN1671
Proper Shipping Name: Phenol, solid
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: II
Description: No information available
IMDG Page: No information available
Marine Pollutant No information available
EMS: F-A
MFAG: No information available
Maximum Quantity: No information available

RID

UN-No: UN1671
Proper Shipping Name: Phenol, solid
Hazard Class: 6.1
Subsidiary Risk: 6.1
Packing Group: II
Classification Code: No information available
Description: No information available

ICAO

UN-No: UN1671
Proper Shipping Name: Phenol, solid
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: II
Description: No information available

IATA

UN-No: UN1671
Proper Shipping Name: Phenol, solid
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: II
ERG Code: 6L
Description: No information available

15. REGULATORY INFORMATION

International Inventories

Components	U.S. TSCA	Philippines (PICCS)	KOREA KECL	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Phenol	Present	Present	Present KE-28209	3-481	Present	Present	Present 203-632-7

U.S. Regulations

Phenol

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: Present
New Jersey (EHS) List: Present
New Jersey - Discharge Prevention - List of Hazardous Substances: Present
Pennsylvania RTK: Environmental hazard
Pennsylvania RTK - Environmental Hazard List Present

Phenol

Minnesota - Hazardous Substance List: Present
New York Release Reporting - List of Hazardous Substances:
1000 lb RQ
1 lb RQ
Louisana Reportable Quantity List for Pollutants: 1000lbfinal RQ
454kgfinal RQ
California Directors List of Hazardous Substances: Present

California Prop. 65: Safe Drinking Water and Toxic Enforcment Act of 1986.

Chemicals Known to the State of California to Cause Cancer:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Phenol	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting *de minimis*
Phenol	1000 lb final RQ 454 kg final RQ	1000 lb EPCRA RQ	None	None	1.0 % de minimis concentration

U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Phenol	Not Applicable	06/01/1987 06/01/1997

Canada

WHMIS hazard class:
D1A Very toxic materials
E Corrosive material

Phenol
D1A E

Canada Controlled Products Regulation:
This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -
Phenol	1 %

Inventory

Components	Canada (DSL)	Canada (NDSL)
Phenol	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Manditory Reporting

Phenol	Not listed	Not listed

EU Classification

R-phrase(s)
R34 - Causes burns.
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.

S -phrase(s)
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 .?
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 1/2 - Keep locked up and out of the reach of children.
S24/25 - Avoid contact with skin and eyes.
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

Components	Classification	Concentration Limits:	Safety Phrases
Phenol	T; R23/24/25 C; R34 Xn; R48/20/21/22 Muta.Cat.3; R68	10%<=C: T; R:23/24/25 3%<=C<10%: Xn; R:20/21/22 3%<=C: C; R:34 1%<=C<3%: Xi; R:36/38	S1/2 S24/25 S26 S28 S36/37/39 S45

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:
T - Toxic
Xn - Harmful.
C - Corrosive.

16. OTHER INFORMATION

16. OTHER INFORMATION

NFPA	HMIS	Personal Protective Equipment

See Section 8.

Preparation Date: 11/06/2013
Revision Date: 11/06/2013
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Material Safety Data Sheet