

Scientific Documentation

Phenol, Fused Crystal, USP

Not appropriate for regulatory submission.

Please visit www.spectrumchemical.com or contact Tech Services for the most up-to-date information contained in this information package.

Spectrum Chemical Mfg Corp
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Table of Contents

Product Specification
Certificate of Analysis
Safety Data Sheet (SDS)
Certification of Current Good Manufacturing Practices (cGMP)
Manufacturing Process Flowchart
Technical Statements
Elemental Impurities Statement
Residual Solvents Statement
General Label Information – Sample Label

Specification for Phenol, Fused Crystal, USP (PH120)

| | |
|-------------------|---|
| Item Number | PH120 |
| Item | Phenol, Fused Crystal, USP |
| CAS Number | 108-95-2 |
| Molecular Formula | C ₆ H ₆ O |
| Molecular Weight | 94.11 |
| MDL Number | |
| Synonyms | Carbolic Acid ; Phenyl, Hydrate ; Phenylic Acid |

| Test | Specification | |
|----------------------------------|-----------------------------|---------|
| | Min | Max |
| APPEARANCE | | |
| ASSAY (ANHYDROUS BASIS) | 99.0 | 100.5 % |
| CLARITY OF SOLUTION AND REACTION | CLEAR AND NEUTRAL TO LITMUS | |
| CONGEALING TEMPERATURE | 39°C | |
| WATER DETERMINATION | | 0.5 % |
| NONVOLATILE RESIDUE | | 0.05 % |
| ELEMENTAL IMPURITIES: | | |
| CADMIUM (Cd) | AS REPORTED | |
| LEAD (Pb) | AS REPORTED | |
| ARSENIC (As) | AS REPORTED | |
| IDENTIFICATION (A) | WHITE PRECIPITATE IS FORMED | |
| IDENTIFICATION (B) | VIOLET COLOR IS PRODUCED | |
| CERTIFIED HALAL | | |
| EXPIRATION DATE | | |
| DATE OF MANUFACTURE | | |
| RESIDUAL SOLVENTS | AS REPORTED | |
| CLASS 1 (solvent) / BENZENE | . | |
| CLASS 2 (SOLVENT) / CUMENE | . | |

| Test | Specification | |
|--|---------------|-----|
| | Min | Max |
| CLASS 2 (SOLVENT) / METHANOL | . | |
| CLASS 2 (solvent) / METHYLISOBUTYLKETONE | . | |
| CLASS 3 (solvent) / ACETONE | . | |
| CLASS 3 (solvent) / ANISOLE | . | |
| MONOGRAPH EDITION | | |

Spectrum Chemical Mfg Corp

| | |
|---------------------------------------|------------------------------------|
| <i>Corporate Headquarters:</i> | <i>West Coast Facility:</i> |
| 769 Jersey Ave. | 14422 S. San Pedro St. |
| New Brunswick, NJ 08901 | Gardena, CA 90248 |
| 732.214.1300 | 310.516.8000 |

Certificate Of Analysis

| | | | |
|-------------------|---------------------------------|------------------|----------|
| Item Number | PH120 | Lot Number | 1NA0221 |
| Item | Phenol, Fused Crystal, USP | CAS Number | 108-95-2 |
| Molecular Formula | C ₆ H ₆ O | Molecular Weight | 94.11 |

| TEST | SPECIFICATION | | RESULT |
|--|-----------------------------|---------|-----------------------------|
| | MIN | MAX | |
| APPEARANCE | | | WHITE CRYSTALS |
| ASSAY (ANHYDROUS BASIS) | 99.0 | 100.5 % | 99.8 % |
| CLARITY OF SOLUTION AND REACTION | CLEAR AND NEUTRAL TO LITMUS | | CLEAR AND NEUTRAL TO LITMUS |
| CONGEALING TEMPERATURE | 39°C | | 39.5°C |
| WATER DETERMINATION | | 0.5 % | 0.2 % |
| NONVOLATILE RESIDUE | | 0.05 % | 0.01 % |
| ELEMENTAL IMPURITIES: | | | . |
| CADMIUM (Cd) | AS REPORTED | | <0.2 µg/g |
| LEAD (Pb) | AS REPORTED | | <0.5 µg/g |
| ARSENIC (As) | AS REPORTED | | <1.5 µg/g |
| IDENTIFICATION (A) | WHITE PRECIPITATE IS FORMED | | WHITE PRECIPITATE IS FORMED |
| IDENTIFICATION (B) | VIOLET COLOR IS PRODUCED | | VIOLET COLOR IS PRODUCED |
| CERTIFIED HALAL | | | CERTIFIED HALAL |
| EXPIRATION DATE | | | 30-NOV-2025 |
| DATE OF MANUFACTURE | | | 23-NOV-2022 |
| RESIDUAL SOLVENTS | AS REPORTED | | . |
| CLASS 1 (solvent) / BENZENE | . | | <2 ppm |
| CLASS 2 (SOLVENT) / CUMENE | . | | <70 ppm |
| CLASS 2 (SOLVENT) / METHANOL | . | | <3000 ppm |
| CLASS 2 (solvent) / METHYLISOBUTYLKETONE | . | | <4500 ppm |

| TEST | SPECIFICATION | | RESULT |
|-----------------------------|---------------|-----|---------------|
| | MIN | MAX | |
| CLASS 3 (solvent) / ACETONE | . | | <5000 ppm |
| CLASS 3 (solvent) / ANISOLE | . | | <5000 ppm |
| MONOGRAPH EDITION | | | (USP-NF) 2023 |

Certificate of Analysis Results Entered By:

HERMUDEZ
Hernan Bermudez
31-JAN-24 17:49:01

Spectrum Chemical Mfg Corp
14422 South San Pedro Street
Gardena 90248 CA



Certificate of Analysis Results Approved By:

AMENDEZ
Ana Mendez
05-FEB-24 10:19:52

All pharmaceutical ingredients are tested using current edition of applicable pharmacopeia.

Read and understand label and SDS before handling any chemicals. All Spectrum's chemicals are for manufacturing, processing, repacking or research purposes by experienced personnel only. It is the customer's responsibility to provide adequate hazardous material training and ensure that appropriate Personal Protective Equipment (PPE) is used before handling any chemical.

The Elemental Impurities standards implemented by USP and other Pharmaceutical Compendia reflect a growing understanding of the toxicology of trace levels of elemental impurities that can remain in drug substances originating from either raw materials or manufacturing processes. Identifying and quantifying impurities can be critical to predicting the best possible patient outcomes. Elemental Impurities has been a requirement of all products meeting USP/NF, EP and BP monographs since January 1, 2018. More information can be found in USP sections <232> Elemental Impurities – Limits and <233> Elemental Impurities – Procedures. Data for drug substances furnished by Spectrum Chemical Mfg. Corp can be used to ensure that patient daily exposures by oral administration to the selected elements are not exceeded in the formulation of pharmaceutical products.

SAFETY DATA SHEET

spectrum®



Revision date 09-October-2023

Revision Number 4

1. Identification

Product identifier

Product Name PHENOL, FUSED CRYSTAL, USP

Other means of identification

Product Code(s) PH120

UN/ID no UN1671

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use No information available

Restrictions on use No information available

Details of the supplier of the safety data sheet

Supplier Address

Spectrum Chemical Mfg. Corp.
14422 South San Pedro St.
Gardena, CA 90248
(310) 516-8000

Emergency telephone number

Emergency Telephone Chemtrec 1-800-424-9300

2. Hazard(s) identification

Classification

| | |
|--|------------|
| 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 1 |
| Serious eye damage/eye irritation | Category 1 |
| Germ cell mutagenicity | Category 2 |
| Specific target organ toxicity (repeated exposure) | Category 2 |

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Danger

Hazard statements

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



Appearance Crystals

Physical state Solid

Odor No information available

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
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
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: Call a POISON CENTER or doctor 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

Unknown acute toxicity

Other information

No information available.

3. Composition/information on ingredients

Substance

| Chemical name | CAS No | Weight-% |
|---------------|----------|----------|
| Phenol | 108-95-2 | 100 |

4. First-aid measures

Description of first aid measures

| | |
|---|---|
| General advice | Show this safety data sheet to the doctor in attendance. Immediate medical attention is required. |
| Inhalation | If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Do not breathe dust. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical advice/attention. |
| Eye contact | Get immediate medical advice/attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. |
| Skin contact | Get immediate medical advice/attention. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. |
| Ingestion | Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention. |
| Self-protection of the first aider | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Do not breathe dust. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. |

Most important symptoms and effects, both acute and delayed

| | |
|-----------------|--|
| Symptoms | Coughing and/ or wheezing. Difficulty in breathing. Burning sensation. |
|-----------------|--|

Indication of any immediate medical attention and special treatment needed

| | |
|---------------------------|--|
| Note to physicians | Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. |
|---------------------------|--|

5. Fire-fighting measures

| | |
|---|--|
| Suitable Extinguishing Media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Large Fire | CAUTION: Use of water spray when fighting fire may be inefficient. |
| Unsuitable extinguishing media | Do not scatter spilled material with high pressure water streams. |
| Specific hazards arising from the chemical | The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. |
| Hazardous combustion products | Carbon Monoxide, Carbon Dioxide. |
| Explosion data | |
| Sensitivity to mechanical impact | none. |
| Sensitivity to static discharge | none. |

Special protective equipment for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions

Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid generation of dust. Do not breathe dust. Keep people away from and upwind of spill/leak. Attention! Corrosive material.

Other information

Refer to protective measures listed in Sections 7 and 8.

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

Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash before reuse. Do not breathe dust. Avoid generation of dust. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up. Store away from other materials. Sensitive to light. Store in light-resistant containers. Air sensitive. Protect from moisture.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|--------------------|-------------------|---------------------------------------|------------|
| Phenol 108-95-2 | No data available | 5 ppm TWA 19 mg/m ³ TWA | - |

Appropriate engineering controls

Engineering controls

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tight sealing safety goggles. Face protection shield.

Hand protection

Wear suitable gloves. Impervious gloves.

| | |
|---------------------------------------|--|
| Skin and body protection | Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. |
| Respiratory protection | When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. |
| General hygiene considerations | Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Do not breathe dust. Take off contaminated clothing and wash before reuse. Contaminated work clothing should not be allowed out of the workplace. |

9. Physical and chemical properties

Information on basic physical and chemical properties

| | |
|-----------------------|----------------------------------|
| Physical state | Solid |
| Appearance | Crystals |
| Color | Colorless to White or light pink |
| Odor | No information available |
| Odor threshold | No information available |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|---|---|-------------------------|
| pH | no data available | None known |
| Melting point / freezing point | 41 °C / 105.8 °F | None known |
| Boiling point / boiling range | 182 °C / 359.6 °F | None known |
| Flash point | 79 °C / 174.2 °F | None known |
| Evaporation rate | no data available | None known |
| Flammability (solid, gas) | no data available | None known |
| Flammability Limit in Air | | None known |
| Upper flammability or explosive limits | No data available | |
| Lower flammability or explosive limits | No data available | |
| Vapor pressure | No data available | None known |
| Vapor density | no data available | None known |
| Relative density | 1.07 | None known |
| Water solubility | Soluble in water | None known |
| Solubility(ies) | Very soluble in Acetone Very soluble in chloroform Very soluble in alcohol Very soluble in Dimethyl Sulfoxide Soluble in Carbon Disulfide Soluble in alkaline solutions. | None known |
| Partition coefficient | No data available | None known |
| Autoignition temperature | no data available | None known |
| Decomposition temperature | | None known |
| Kinematic viscosity | no data available | None known |
| Dynamic viscosity | No data available | None known |

Other information

| | |
|-----------------------------|--------------------------|
| Explosive properties | No information available |
| Oxidizing properties | No information available |
| Softening point | No information available |
| Molecular weight | No information available |
| VOC Content (%) | No information available |
| Liquid Density | No information available |
| Bulk density | No information available |

10. Stability and reactivity

| | |
|-------------------|---------------------------|
| Reactivity | No information available. |
|-------------------|---------------------------|

| | |
|---|---|
| Chemical stability | Stable under normal conditions. |
| Possibility of hazardous reactions | None under normal processing. |
| Conditions to avoid | Excessive heat. Exposure to air or moisture over prolonged periods. |
| Incompatible materials | Acids. Bases. Oxidizing agent. |
| Hazardous decomposition products | None known based on information supplied. |

11. Toxicological information

Information on likely routes of exposure

Product Information

| | |
|---------------------|---|
| Inhalation | Specific test data for the substance or mixture is not available. Fatal if inhaled. (based on components). Corrosive by inhalation. Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. |
| Eye contact | Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components). Corrosive to the eyes and may cause severe damage including blindness. May cause irreversible damage to eyes. |
| Skin contact | Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns. Toxic in contact with skin. |
| Ingestion | Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways. |

Symptoms related to the physical, chemical and toxicological characteristics

| | |
|-----------------|--|
| Symptoms | Coughing and/ or wheezing. Difficulty in breathing. Redness. Burning. May cause blindness. |
|-----------------|--|

Acute toxicity

Numerical measures of toxicity

Unknown acute toxicity

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|--------------------|---------------------|------------------------|-------------------------------------|
| Phenol 108-95-2 | = 340 mg/kg (Rat) | = 630 mg/kg (Rabbit) | = 316 mg/m ³ (Rat) 4 h |

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

| | |
|--|---|
| Skin corrosion/irritation | Classification based on data available for ingredients. Causes burns. |
| Serious eye damage/eye irritation | Classification based on data available for ingredients. Risk of serious damage to eyes. Causes burns. |
| Respiratory or skin sensitization | No information available. |
| Germ cell mutagenicity | Contains a known or suspected mutagen. Classification based on data available for |

ingredients. Suspected of causing genetic defects.

Carcinogenicity

No information available.

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 - Not classifiable - Monograph 71 [1999] Monograph 47 [1989] | - | - |

Legend

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive toxicity

No information available.

STOT - single exposure

No information available.

STOT - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Target organ effects

liver, kidney, respiratory system, Eyes, Skin.

Aspiration hazard

No information available.

Other adverse effects

No information available.

Interactive effects

No information available.

12. Ecological information

Ecotoxicity

| Chemical name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|--------------------|---|---|----------------------------|---|
| Phenol 108-95-2 | EC50: 0.0188 - 0.1044mg/L (96h, Pseudokirchneriella subcapitata) EC50: 187 - 279mg/L (72h, Desmodesmus subspicatus) EC50: =46.42mg/L (96h, Pseudokirchneriella subcapitata) | LC50: 11.9 - 25.3mg/L (96h, Lepomis macrochirus) LC50: 11.9 - 50.5mg/L (96h, Pimephales promelas) LC50: 20.5 - 25.6mg/L (96h, Pimephales promelas) LC50: 23.4 - 36.6mg/L (96h, Oryzias latipes) LC50: 33.9 - 43.3mg/L (96h, Oryzias latipes) LC50: 34.09 - 47.64mg/L (96h, Poecilia reticulata) LC50: 4.23 - 7.49mg/L (96h, Oncorhynchus mykiss) LC50: 5.0 - 12.0mg/L (96h, Oncorhynchus mykiss) LC50: 5.449 - 6.789mg/L (96h, Oncorhynchus mykiss) LC50: 7.5 - 14mg/L (96h, Oncorhynchus mykiss) LC50: =0.00175mg/L (96h, Cyprinus carpio) LC50: =11.5mg/L (96h, Lepomis macrochirus) LC50: =13.5mg/L (96h, Lepomis macrochirus) LC50: =27.8mg/L (96h, | - | EC50: 10.2 - 15.5mg/L (48h, Daphnia magna) EC50: 4.24 - 10.7mg/L (48h, Daphnia magna) |

| | | | | |
|--|--|--|--|--|
| | | Brachydanio rerio) LC50: =31mg/L (96h, Poecilia reticulata) LC50: =32mg/L (96h, Pimephales promelas) | | |
|--|--|--|--|--|

Persistence and degradability No information available.

Bioaccumulation Inherently biodegradable.

Component Information

| Chemical name | Partition coefficient |
|--------------------|-----------------------|
| Phenol 108-95-2 | 1.5 |

Other adverse effects No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. Transport information

DOT

UN/ID no UN1671
 Proper shipping name Phenol, solid
 Hazard class 6.1
 Special Provisions II
 Special Provisions IB8, IP2, IP4, N78, T3, TP33
 Marine Pollutant Severe Marine Pollutant
 Description UN1671, Phenol, solid, 6.1, II

TDG

UN/ID no. UN1671
 Proper shipping name Phenol, solid
 Hazard class 6.1
 Packing Group II
 Special Provisions 43
 Description UN1671, Phenol, solid, 6.1, II

MEX

UN-No UN1671
 Proper Shipping Name Phenol, solid
 Hazard class 6.1
 Special Provisions 279
 Packing Group II
 Description UN1671, Phenol, solid, 6.1, II

ICAO (air)

UN/ID no. UN1671
 Hazard class 6.1
 Packing Group II
 Special Provisions A113

IATA

UN number UN1671

| | |
|--|------|
| Hazard Class | 6.1 |
| Packing group | II |
| Emergency Response Guide Number | 6L |
| Special Provisions | A113 |

IMDG

| | |
|---------------------------|----------|
| UN number | UN1671 |
| Hazard Class | 6.1 |
| Packing group | II |
| EmS-No | F-A, S-A |
| Special Provisions | 279 |
| Marine Pollutant | NP1 |

RID

| | |
|-----------------------------|--------------------------------|
| UN number | UN1671 |
| Proper shipping name | PHENOL, SOLID |
| Hazard Class | 6.1 |
| Packing group | II |
| Classification code | T2 |
| Special Provisions | 279 |
| Description | UN1671, PHENOL, SOLID, 6.1, II |
| Labels | 6.1 |

ADR

| | |
|--------------------------------|---------------------------------------|
| UN number | UN1671 |
| Proper shipping name | Phenol, solid |
| Hazard Class | 6.1 |
| Packing group | II |
| Classification code | T2 |
| Tunnel restriction code | (D/E) |
| Special Provisions | 279 |
| Description | UN1671, Phenol, solid, 6.1, II, (D/E) |
| Labels | 6.1 |

ADN

| | |
|-------------------------------|--------------------------------|
| UN/ID No | UN1671 |
| Proper shipping name | Phenol, solid |
| Hazard Class | 6.1 |
| Packing Group | II |
| Classification code | T2 |
| Special Provisions | 279, 802 |
| Description | UN1671, Phenol, solid, 6.1, II |
| Hazard label(s) | 6.1 |
| Equipment Requirements | PP, EP |

15. Regulatory information

International Inventories

| | |
|-------------|----------|
| TSCA | Complies |
|-------------|----------|

| | |
|----------------------|---|
| DSL/NDL | Complies |
| EINECS/ELINCS | Complies |
| ENCS | This product complies with ENCS: |
| IECSC | This product complies with China: |
| KECL | Complies |
| PICCS | Complies |
| AICS | All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS). |

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European 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

US 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.

| Chemical name | SARA 313 - Threshold Values % |
|-------------------|-------------------------------|
| Phenol - 108-95-2 | 1.0 |

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

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 |
|--------------------|-------------------------------------|------------------------------------|
| Phenol 108-95-2 | 1000 lb final RQ 454 kg final RQ | - |

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|--------------------|------------|---------------|----------------------|
| Phenol 108-95-2 | 1487 | Present | Environmental hazard |

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA

Health hazards 4

Flammability 2

Instability 0

Physical and chemical properties -

HMIS

Health hazards 4 *

Flammability 2

Physical hazards 0

Personal protection X

Key or legend to abbreviations and acronyms used in the safety data sheet**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

| | | | |
|---------|-----------------------------|------|----------------------------------|
| TWA | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value | | |

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGl(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 09-October-2023

Revision Note No information available.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



Certification of Compliance with current Good Manufacturing Practices

Dear Valued Customer:

Spectrum Chemical Mfg Corp certifies that the following product(s) is produced, processed, packaged and held in compliance with current Good Manufacturing Practices (cGMP) in accordance with the applicable parts of 21 CFR, parts 210 and 211 of the Code of Federal Regulations.

| Catalog Number | Product Name |
|----------------|----------------------------|
| PH120 | Phenol, Fused Crystal, USP |

Spectrum is an FDA registered and inspected Drug Establishment. Our United States Food and Drug Administration (USFDA) Registration numbers are as follows:

Spectrum-Gardena, CA: 2020632
Spectrum-New Brunswick, NJ: 2246824

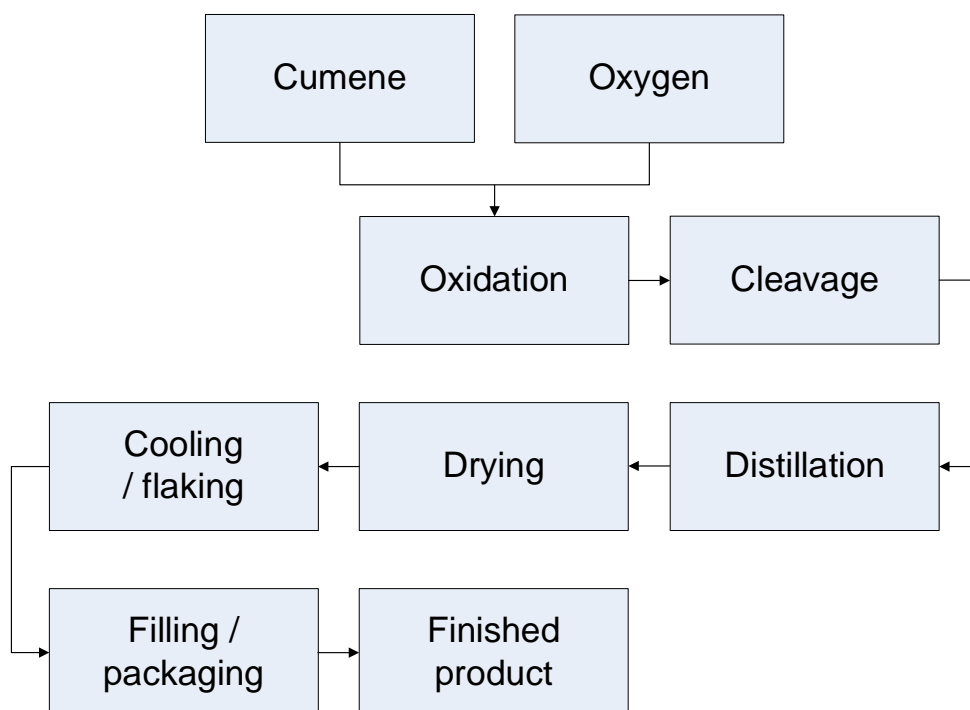
Thank you for your interest in Spectrum products. If we may be of further assistance, please feel free to contact the Quality Assurance department at 310-516-8000 or via email at qualityassurance@spectrumchemical.com

Sincerely,

Oralia Chavez
Quality Assurance Specialist

Manufacturing Process Flowchart

Phenol, Fused Crystal, USP – PH120



CORPORATE HEADQUARTERS

769 Jersey Avenue

New Brunswick, NJ 08901

PHONE 732.214.1300

FAX 732.246.7132

WEST COAST FACILITY

14422 South San Pedro Street

Gardena, California 90248

PHONE 310.516.8000

FAX 310.516.9843

PH120, Phenol, Fused Crystal, USP

Source Statement

The above mentioned catalog item is manufactured by chemical synthesis. No animal or plant derived products are used in the manufacturing process.

BSE/TSE Statement

The above mentioned catalog item does not contain nor is manufactured using any animal derived products and is therefore, BSE/TSE free.

Allergen Statement

The above mentioned catalog item does not contain any of the following:

- Milk
- Egg
- Fish
- Shellfish
- Tree Nuts
- Wheat
- Peanuts
- Cereals containing Gluten
- Celery
- Mustard
- Sesame Seed
- Soy
- Latex
- Sulfites > 10 ppm

GMO Statement

The above mentioned catalog item is manufactured without the use of genetically modified organisms and is therefore GMO free.

Melamine Statement

The above mentioned catalog does not use or add melamine to the manufacturing process and is considered melamine-free.

Nitrosamine Statement

Based on knowledge of the manufacturing process, nitrosamine impurities are not known or suspected to be present in this material.

Animal Testing Statement

The above mentioned catalog item has not been tested on animals.

Organic Compliance Statement

The above mentioned catalog item has not been produced using GMOs, irradiation or ethylene oxide (EtO).

Shelf Life Statement

The above mentioned catalog item is typically assigned a shelf life of 36 months from the date of manufacture. The actual assigned shelf life for any specific lot should be referenced on the Certificate of Analysis.

Other Chemicals Statement

Spectrum does not have any reason to suspect the above mentioned catalog item contains any of the following chemicals. This product does not come into contact with these chemicals during packaging or storage:

- | | |
|------------------|-----------------|
| • Aflatoxins | • Pesticides |
| • Antibiotics | • Phthalates |
| • CMR Substances | • Preservatives |
| • Parabens | |



RE: Elemental Impurities – Phenol, Fused Crystal, USP (Cat# PH120)

To Whom It May Concern:

Thank you for your interest in Spectrum high quality chemicals.

The above material complies with the USP<232>, <233> Elemental Impurities and the ICH Q3D Elemental Impurities Guideline. The following elemental impurities are likely to be present:

| Elemental Impurity | | Class | Expected Concentration |
|--------------------|----|-------|------------------------|
| Cadmium | Cd | 1 | < 0.2 ppm |
| Lead | Pb | 1 | < 0.5 ppm |
| Arsenic | As | 1 | < 1.5 ppm |

Other elemental impurities considered by USP <232>, <233> and ICH Q3D which are not addressed in the above mentioned table are not likely to be present. These substances are not used in the production process, are not intentionally added or known to be present in the above mentioned material.

This information is subject to change and is intended for risk assessment only. It is responsibility of the end user to evaluate suitability of any chemical for the intended use as well as to assess compound-specific limits of daily intake of metal impurities. For lot-specific information, please refer to the respective Certificate of Analysis.

If you have any further questions, please contact us by telephone at 1(800)772-8786 Option 2, or by email at TechServices@spectrumchemical.com.

Sincerely,

Technical Services
Spectrum Chemical Mfg. Corp.

This document has been produced electronically and is valid without a signature.

CORPORATE HEADQUARTERS

769 Jersey Avenue

New Brunswick, NJ 08901

PHONE 732.214.1300

FAX 732.246.7132

WEST COAST FACILITY

14422 South San Pedro Street

Gardena, California 90248

PHONE 310.516.8000

FAX 310.516.9843



RE: Residual Solvents – Phenol, Fused Crystal, USP (Cat# PH120)

To Whom It May Concern:

Thank you for your interest in Spectrum high quality chemicals.

The above mentioned catalog item complies with the requirements of USP <467> Residual Solvents and ICH Q3C Residual Solvents Guideline. The following solvents are likely to be present:

| Residual Solvent | Class | Expected Concentration |
|------------------------|-------|------------------------|
| Benzene | 1 | < 2 ppm |
| Cumene | 2 | < 70 ppm |
| Methanol | 2 | < 3000 ppm |
| Methyl Isobutyl Ketone | 2 | < 4500 ppm |
| Acetone | 3 | < 5000 ppm |
| Anisole | 3 | < 5000 ppm |

No other solvents are used or produced in the manufacturing process of this material.

For lot-specific information, please refer to the respective Certificate of Analysis.

If you have any further questions, please contact us by telephone at 1(800)772-8786 Option 2, or by email at TechServices@spectrumchemical.com.

Sincerely,

Technical Services
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Gardena, California 90248
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Label Information

The Spectrum label presents technical and safety information in an easily understood format. Our technical specialists stay abreast of the latest requirements of the Globally Harmonized System for Classification and Labelling of Chemicals (GHS), as well as the Occupational Safety and Health Administration (OSHA), the Food and Drug Administration (FDA) and other government regulatory agencies in order to ensure compliance, accuracy and concise hazard communication. Below you will find a typical label example for this catalog item.

Exp. Date: 00-00-0000



DANGER

- Fatal if inhaled • Causes severe skin burns and eye damage • Toxic in contact with skin • Harmful if swallowed • Suspected of causing genetic defects • May cause damage to organs through prolonged or repeated exposure.
- Obtain special instructions before use • Do not handle until all safety precautions have been read and understood • Do not eat, drink or smoke when using this product • Wear respiratory protection, eye protection, face protection, protective gloves, protective clothing • Do not breathe dust • Use only outdoors or in a well-ventilated area • Wash face, hands and any exposed skin thoroughly after handling.

FIRST AID: Immediately call a POISON CENTER or physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.

KEEP FROM CHILDREN

PH120

SIZ SY

Phenol
(Carbolic Acid)

Fused Crystal, USP

CAS 108-95-2

CAUTION: For manufacturing, processing or repacking.
Read and understand the label and Safety Data Sheet (SDS) prior to use.

DOT: UN1671, Phenol, solid, 6.1, PG II

Chemical Emergency: (800)424-9300

www.SpectrumChemical.com

C_6H_6O F.W. 94.11

Contains 20 ppm citric acid as stabilizer.

Assay (Anhydrous Basis) 99.0-100.5%
Clarity of Solution and Reaction To pass test
Congealing Temperature Min. 39°C

MAXIMUM LIMITS

Water Determination 0.5%
Nonvolatile Residue 0.05%
Elemental Impurities As reported
Residual Solvents To pass test

LIGHT SENSITIVE, AIR SENSITIVE, MOISTURE SENSITIVE: Keep tightly closed in light-resistant containers. Store under nitrogen.

B 20/18GHS ?

Lot No. XQ####

Spectrum Chemical Mfg Corp

Corporate Headquarters:

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New Brunswick, NJ 08901
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