

Creation Date Oct-2013

Revision Date Oct-2018

Revision Number 2

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identification

<b>Product Description:</b>	<b>Phenol</b>
<b>Product Grade:</b>	SQ, ER
<b>Cat No. :</b>	Q26355, Q15615
<b>Synonyms</b>	Carbolic acid; Hydroxybenzene
<b>CAS-No</b>	108-95-2
<b>EC-No.</b>	203-632-7
<b>Molecular Formula</b>	C6 H6 O
<b>Reach Registration Number</b>	-

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

<b>Recommended Use</b>	Laboratory chemicals.
<b>Sector of use</b>	SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites
<b>Product category</b>	PC21 - Laboratory chemicals
<b>Process categories</b>	PROC15 - Use as a laboratory reagent
<b>Environmental release category</b>	ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates)
<b>Uses advised against</b>	No Information available

### 1.3. Details of the supplier of the safety data sheet

<b>Company</b>	Thermo Fisher Scientific India Pvt. Ltd 403-404, B-wing, Delphi, Hiranandani Business Park, Powai, Mumbai 400076, INDIA.
<b>E-mail address</b>	<a href="mailto:laboratorysolutions@thermofisher.com">laboratorysolutions@thermofisher.com</a>

<b>1.4. Emergency telephone number</b>	India Toll Free: 18 00 22 22 30 Chemtrec US: (800)424-9300 Chemtrec EU: 001(202)483-7616
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## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

#### CLP Classification - Regulation (EC) No 1272/2008

##### Physical hazards

Based on available data, the classification criteria are not met

##### Health hazards

Acute oral toxicity	Category 3 (H301)
Acute dermal toxicity	Category 3 (H311)
Acute Inhalation Toxicity - Dusts and Mists	Category 3 (H331)
Skin Corrosion/irritation	Category 1 B (H314)
Germ Cell Mutagenicity	Category 2 (H341)
Specific target organ toxicity - (repeated exposure)	Category 2 (H373)

##### Environmental hazards

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Chronic aquatic toxicity

Category 2 (H411)

## 2.2. Label elements



Signal Word

Danger

### Hazard Statements

- H301 - Toxic if swallowed
- H311 - Toxic in contact with skin
- H314 - Causes severe skin burns and eye damage
- H331 - Toxic if inhaled
- H341 - Suspected of causing genetic defects
- H373 - May cause damage to organs through prolonged or repeated exposure
- H411 - Toxic to aquatic life with long lasting effects

### Precautionary Statements

- P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
- P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
- P302 + P350 - IF ON SKIN: Gently wash with plenty of soap and water
- P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
- P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- P310 - Immediately call a POISON CENTER or doctor/ physician

## 2.3. Other hazards

Combustible material

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

Component	CAS-No	EC-No.	Weight %	CLP Classification - Regulation (EC) No 1272/2008
Phenol	108-95-2	EEC No. 203-632-7	>95	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Muta. 2 (H341) STOT RE 2 (H373) Aquatic Chronic 2 (H411)

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Full text of Hazard Statements: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

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<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
<b>Ingestion</b>	Do not induce vomiting. Call a physician or Poison Control Center immediately.
<b>Inhalation</b>	Move to fresh air. If breathing is difficult, give oxygen. 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. Immediate medical attention is required.
<b>Protection of First-aiders</b>	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

## **4.2. Most important symptoms and effects, both acute and delayed**

Breathing difficulties. Causes burns by all exposure routes. . Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: May cause central nervous system depression

## **4.3. Indication of any immediate medical attention and special treatment needed**

**Notes to Physician** Treat symptomatically.

## **SECTION 5: FIREFIGHTING MEASURES**

### **5.1. Extinguishing media**

#### **Suitable Extinguishing Media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Cool closed containers exposed to fire with water spray.

#### **Extinguishing media which must not be used for safety reasons**

No information available.

### **5.2. Special hazards arising from the substance or mixture**

Combustible material. Risk of ignition. Containers may explode when heated. Vapors may travel to source of ignition and flash back.

#### **Hazardous Combustion Products**

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>).

### **5.3. Advice for firefighters**

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

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Remove all sources of ignition. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid dust formation. Take precautionary measures against static discharges.

### **6.2. Environmental precautions**

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Do not flush into surface water or sanitary sewer system. See Section 12 for additional ecological information. Avoid release to the environment. Collect spillage.

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

Remove all sources of ignition. Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Use spark-proof tools and explosion-proof equipment.

## 6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Use only under a chemical fume hood. Wear personal protective equipment. Avoid dust formation. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Keep away from open flames, hot surfaces and sources of ignition.

### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday.

### 7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Protect from moisture. Protect from light. Corrosives area.

### 7.3. Specific end use(s)

Use in laboratories

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure limits

List source(s): **EU** - Commission Directive 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC on the protection of the health and safety of workers from the risks related to chemical agents at work. **UK** - EH40/2005 Containing the workplace exposure limits (WELs) for use with the Control of Substances Hazardous to Health Regulations (COSHH) 2002 (as amended). Updated by September 2006 official press release and October 2007 Supplement. **IRE** - 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001. Published by the Health and Safety Authority.

Component	European Union	The United Kingdom	France	Belgium	Spain
Phenol	Possibility of significant uptake through the skin TWA: 2 ppm 8 hr TWA: 8 mg/m <sup>3</sup> 8 hr STEL: 4 ppm 15 min STEL: 16 mg/m <sup>3</sup> 15 min TWA: 7.8 mg/m <sup>3</sup> 8 hr	STEL: 4 ppm 15 min STEL: 16 mg/m <sup>3</sup> 15 min TWA: 2 ppm 8 hr TWA: 7.8 mg/m <sup>3</sup> 8 hr Skin	TWA / VME: 2 ppm (8 heures). restrictive limit TWA / VME: 7.8 mg/m <sup>3</sup> (8 heures). restrictive limit STEL / VLCT: 4 ppm. restrictive limit STEL / VLCT: 15.6 mg/m <sup>3</sup> . restrictive limit Peau	TWA: 2 ppm 8 uren TWA: 8 mg/m <sup>3</sup> 8 uren STEL: 4 ppm 15 minuten STEL: 16 mg/m <sup>3</sup> 15 minuten Huid	STEL / VLA-EC: 4 ppm (15 minutos). STEL / VLA-EC: 16 mg/m <sup>3</sup> (15 minutos). TWA / VLA-ED: 2 ppm (8 horas) TWA / VLA-ED: 8 mg/m <sup>3</sup> (8 horas) Piel

Component	Italy	Germany	Portugal	The Netherlands	Finland
Phenol	TWA: 2 ppm 8 ore. Media Ponderata nel Tempo TWA: 8.0 mg/m <sup>3</sup> 8 ore. Media Ponderata nel	TWA: 2 ppm (8 Stunden). AGW - exposure factor 2 TWA: 8 mg/m <sup>3</sup> (8 Stunden). AGW -	STEL: 4 ppm 15 minutos STEL: 16 mg/m <sup>3</sup> 15 minutos TWA: 2 ppm 8 horas	huid TWA: 8 mg/m <sup>3</sup> 8 uren	TWA: 2 ppm 8 tunteina TWA: 8 mg/m <sup>3</sup> 8 tunteina STEL: 4 ppm 15 minuutteina

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	Tempo STEL: 4 ppm 15 minuti. Breve termine STEL: 16 mg/m <sup>3</sup> 15 minuti. Breve termine Pelle	exposure factor 2 Haut	TWA: 8 mg/m <sup>3</sup> 8 horas Pele		STEL: 16 mg/m <sup>3</sup> 15 minuutteina lho
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Component	Austria	Denmark	Switzerland	Poland	Norway
Phenol	Haut MAK-KZW: 4 ppm 15 Minuten MAK-KZW: 16 mg/m <sup>3</sup> 15 Minuten MAK-TMW: 2 ppm 8 Stunden MAK-TMW: 8 mg/m <sup>3</sup> 8 Stunden	TWA: 1 ppm 8 timer TWA: 4 mg/m <sup>3</sup> 8 timer Hud	Haut/Peau STEL: 5 ppm 15 Minuten STEL: 19 mg/m <sup>3</sup> 15 Minuten TWA: 5 ppm 8 Stunden TWA: 19 mg/m <sup>3</sup> 8 Stunden	STEL: 16 mg/m <sup>3</sup> 15 minutach TWA: 7.8 mg/m <sup>3</sup> 8 godzinach	TWA: 1 ppm 8 timer TWA: 4 mg/m <sup>3</sup> 8 timer STEL: 1 ppm 15 minutter. listed in the List of Administrative Norms STEL: 4 mg/m <sup>3</sup> 15 minutter. listed in the List of Administrative Norms Hud

Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Phenol	TWA: 2 ppm TWA: 8 mg/m <sup>3</sup> STEL : 4 ppm STEL : 16 mg/m <sup>3</sup> Skin notation	kože TWA-GVI: 2 ppm 8 satima. TWA-GVI: 8 mg/m <sup>3</sup> 8 satima. STEL-KGVI: 4 ppm 15 minutama. STEL-KGVI: 16 mg/m <sup>3</sup> 15 minutama.	TWA: 2 ppm 8 hr. TWA: 8 mg/m <sup>3</sup> 8 hr. STEL: 4 ppm 15 min STEL: 16 mg/m <sup>3</sup> 15 min Skin	Skin-potential for cutaneous absorption STEL: 16 mg/m <sup>3</sup> STEL: 4 ppm TWA: 8 mg/m <sup>3</sup> TWA: 2 ppm	TWA: 7.5 mg/m <sup>3</sup> 8 hodinách. Potential for cutaneous absorption Ceiling: 15 mg/m <sup>3</sup>

Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Phenol	Nahk TWA: 2 ppm 8 tundides. TWA: 7.8 mg/m <sup>3</sup> 8 tundides.	Skin notation TWA: 2 ppm 8 hr TWA: 8 mg/m <sup>3</sup> 8 hr STEL: 16 mg/m <sup>3</sup> 15 min STEL: 4 ppm 15 min	skin - potential for cutaneous absorption STEL: 4 ppm STEL: 16 mg/m <sup>3</sup> TWA: 2 ppm TWA: 8 mg/m <sup>3</sup>	STEL: 16 mg/m <sup>3</sup> 15 percekben. CK TWA: 8 mg/m <sup>3</sup> 8 órában. AK lehetséges borón keresztül felszívódás	TWA: 1 ppm 8 klukkustundum. TWA: 4 mg/m <sup>3</sup> 8 klukkustundum. Skin notation Ceiling: 2 ppm Ceiling: 8 mg/m <sup>3</sup>

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Phenol	skin - potential for cutaneous exposure STEL: 4 ppm STEL: 16 mg/m <sup>3</sup> TWA: 2 ppm TWA: 8 mg/m <sup>3</sup>	TWA: 2 ppm IPRD TWA: 8 mg/m <sup>3</sup> IPRD Oda STEL: 4 ppm STEL: 16 mg/m <sup>3</sup>	Possibility of significant uptake through the skin TWA: 2 ppm 8 Stunden TWA: 8 mg/m <sup>3</sup> 8 Stunden STEL: 16 mg/m <sup>3</sup> 15 Minuten STEL: 4 ppm 15 Minuten	possibility of significant uptake through the skin TWA: 2 ppm TWA: 8 mg/m <sup>3</sup> STEL: 16 mg/m <sup>3</sup> 15 minuti STEL: 4 ppm 15 minuti	Skin notation TWA: 2 ppm 8 ore TWA: 8 mg/m <sup>3</sup> 8 ore STEL: 4 ppm 15 minute STEL: 16 mg/m <sup>3</sup> 15 minute

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Phenol	TWA: 0.3 mg/m <sup>3</sup> Skin notation STEL: 1 mg/m <sup>3</sup> vapor	Ceiling: 16 mg/m <sup>3</sup> Potential for cutaneous absorption TWA: 2 ppm TWA: 7.8 mg/m <sup>3</sup>	TWA: 2 ppm 8 urah TWA: 8 mg/m <sup>3</sup> 8 urah Koža STEL: 4 ppm 15 minutah STEL: 16 mg/m <sup>3</sup> 15 minutah	STV: 2 ppm 15 minuter STV: 8 mg/m <sup>3</sup> 15 minuter LLV: 1 ppm 8 timmar. LLV: 4 mg/m <sup>3</sup> 8 timmar. Hud	Deri TWA: 2 ppm 8 saat TWA: 8 mg/m <sup>3</sup> 8 saat STEL: 4 ppm 15 dakika STEL: 16 mg/m <sup>3</sup> 15 dakika

## Biological limit values

List source(s):

Component	European Union	United Kingdom	France	Spain	Germany
Phenol	Phenol: 120 mg/g urine (end of shift after hydrolysis; measured as mg/g Creatinine)		Total Phenol: 250 mg/g creatinine urine end of shift	Phenol (with hydrolysis): 120 mg/g Creatinine urine end of shift	Phenol: 120 mg/g urine (end of shift after hydrolysis; measured as mg/g Creatinine)

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Component	Italy	Finland	Denmark	Bulgaria	Romania
Phenol		Total phenol: 1.3 mmol/L urine end of shift.		Phenol: 200 mg/L urine at the end of exposure or end of shift	total Phenol: 50 mg/L urine end of shift
Component	Gibraltar	Latvia	Slovak Republic	Luxembourg	Turkey
Phenol			Phenol: 200 mg/L urine end of exposure or work shift		

## Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

MDHS70 General methods for sampling airborne gases and vapours

**Derived No Effect Level (DNEL)** No information available

Route of exposure	Acute effects (local)	Acute effects (systemic)	Chronic effects (local)	Chronic effects (systemic)
Oral				
Dermal				
Inhalation				1.23 mg/kg bw/day 8 mg/m <sup>3</sup>

**Predicted No Effect Concentration (PNEC)** See values below.

Fresh water	0,0077 mg/L
Fresh water sediment	0,0915 mg/kg dw.
Marine water	0,00077mg/L
Marine water sediment	0,00915 mg/kg dw.
Soil (Agriculture)	0,136 mg/kg dw.

## 8.2. Exposure controls

### Engineering Measures

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

### Personal protective equipment

<b>Eye Protection</b>	Goggles (European standard - EN 166)
<b>Hand Protection</b>	Protective gloves Butyl rubber Neoprene

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Natural rubber	See manufacturers recommendations	-	EN 374	(minimum requirement)
Butyl rubber				
Nitrile rubber				
Neoprene				
PVC				
Neoprene gloves				

**Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

**Respiratory Protection** Effective dust mask Filter type A.  
To protect the wearer, respiratory protective equipment must be the correct fit and be used

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<b>Large scale/emergency use</b>	and maintained properly Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced
<b>Small scale/Laboratory use</b>	<b>Recommended Filter type:</b> Particulates filter conforming to EN 143 Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. <b>Recommended half mask:-</b> Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141; Particle filtering: EN149:2001 When RPE is used a face piece Fit Test should be conducted
<b>Environmental exposure controls</b>	Prevent product from entering drains. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Colorless - Translucent White	
<b>Physical State</b>	Crystalline Solid	
<b>Odor</b>	pungent	
<b>Odor Threshold</b>	No data available	
<b>pH</b>	6 @ 20°C	10 g/L aq.sol
<b>Melting Point/Range</b>	39 - 42 °C / 102.2 - 107.6 °F	
<b>Softening Point</b>	No data available	
<b>Boiling Point/Range</b>	182 °C / 359.6 °F	@ 760 mmHg
<b>Flash Point</b>	79 °C / 174.2 °F	<b>Method -</b> No information available
<b>Evaporation Rate</b>	Not applicable	Solid
<b>Flammability (solid,gas)</b>	No information available	
<b>Explosion Limits</b>	<b>Lower</b> 1.3 Vol% <b>Upper</b> 9.5 Vol%	
<b>Vapor Pressure</b>	0.4 mbar @ 20 °C	
<b>Vapor Density</b>	Not applicable	Solid
<b>Specific Gravity / Density</b>	1.070	
<b>Bulk Density</b>	No data available	
<b>Water Solubility</b>	soluble	
<b>Solubility in other solvents</b>	No information available	
<b>Partition Coefficient (n-octanol/water)</b>		
<b>Component</b>	<b>log Pow</b>	
Phenol	1.47	
<b>Autoignition Temperature</b>	605 °C / 1121 °F	
<b>Decomposition Temperature</b>	No data available	
<b>Viscosity</b>	3.437 mPa.s (50°C)	
<b>Explosive Properties</b>	No information available	explosive air/vapour mixtures possible
<b>Oxidizing Properties</b>	No information available	

### 9.2. Other information

<b>Molecular Formula</b>	C6 H6 O
<b>Molecular Weight</b>	94.11

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Yes

### 10.2. Chemical stability

Hygroscopic, Light sensitive.

### 10.3. Possibility of hazardous reactions

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## Hazardous Polymerization

No information available.

## Hazardous Reactions

No information available.

## 10.4. Conditions to avoid

Avoid dust formation. Incompatible products. Exposure to moisture. Exposure to light. Keep away from open flames, hot surfaces and sources of ignition.

## 10.5. Incompatible materials

Acids. Bases. Strong oxidizing agents. Halogens. lead. Metals.

## 10.6. Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### Product Information

#### (a) acute toxicity;

Oral

Category 3

Dermal

Category 3

Inhalation

Category 3

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Phenol	Calc. ATE 60 mg/kg (Human evidence) LD50 = 340 mg/kg (Rat) 650 mg/kg (Rat; OECD 401)	Calc. ATE 300 mg/kg (Human evidence) LD50 = 660 mg/kg (Rat) 850 - 1400 mg/kg (Rabbit)	Calc. ATE 0.5 mg/l (Human evidence) LC50 >900 mg/m <sup>3</sup> /8h (Rat)

#### (b) skin corrosion/irritation;

Category 1 B

#### (c) serious eye damage/irritation;

Category 1

#### (d) respiratory or skin sensitization;

Respiratory

Based on available data, the classification criteria are not met

Skin

Based on available data, the classification criteria are not met

#### (e) germ cell mutagenicity;

Category 2

#### (f) carcinogenicity;

Based on available data, the classification criteria are not met

The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	EU	UK	Germany	IARC
Phenol			Cat. 3B	

#### (g) reproductive toxicity;

Reproductive Effects

Based on available data, the classification criteria are not met

Experiments have shown reproductive toxicity effects on laboratory animals.

#### (h) STOT-single exposure;

Based on available data, the classification criteria are not met

#### (i) STOT-repeated exposure;

Category 2

Target Organs

Central nervous system (CNS), Skin, Liver, Kidney.

#### (j) aspiration hazard;

Not applicable

Solid

#### Other Adverse Effects

Tumorigenic effects have been reported in experimental animals. See actual entry in RTECS for complete information



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**Symptoms / effects, both acute and delayed** Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: May cause central nervous system depression

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

#### Ecotoxicity effects

The product contains following substances which are hazardous for the environment. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Contains a substance which is: Very toxic to aquatic organisms.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Phenol	4-7 mg/L LC50 96 h 32 mg/L LC50 96 h	EC50: 10.2 - 15.5 mg/L, 48h (Daphnia magna) EC50: 4.24 - 10.7 mg/L, 48h Static (Daphnia magna)	EC50: 187 - 279 mg/L, 72h static (Desmodesmus subspicatus) EC50: 0.0188 - 0.1044 mg/L, 96h static (Pseudokirchneriella subcapitata) EC50: = 46.42 mg/L, 96h (Pseudokirchneriella subcapitata)	EC50 21 - 36 mg/L 30 min EC50 = 23.28 mg/L 5 min EC50 = 25.61 mg/L 15 min EC50 = 28.8 mg/L 5 min EC50 = 31.6 mg/L 15 min

### 12.2. Persistence and degradability

#### Persistence Degradation in sewage treatment plant

Soluble in water, Persistence is unlikely, based on information available. Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

### 12.3. Bioaccumulative potential

Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Phenol	1.47	17.5

### 12.4. Mobility in soil

The product is water soluble, and may spread in water systems. Will likely be mobile in the environment due to its water solubility. Highly mobile in soils

### 12.5. Results of PBT and vPvB assessment

No data available for assessment.

### 12.6. Other adverse effects

#### Endocrine Disruptor Information Persistent Organic Pollutant Ozone Depletion Potential

This product does not contain any known or suspected endocrine disruptors  
This product does not contain any known or suspected substance  
This product does not contain any known or suspected substance

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

#### Waste from Residues / Unused Products

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

#### Contaminated Packaging

Dispose of this container to hazardous or special waste collection point.

#### European Waste Catalogue (EWC)

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.

#### Other Information

Do not dispose of waste into sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Large amounts will affect pH and harm aquatic organisms. Do not let this chemical enter the environment.

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## SECTION 14: TRANSPORT INFORMATION

### IMDG/IMO

**14.1. UN number** UN1671  
**14.2. UN proper shipping name** PHENOL, SOLID  
**14.3. Transport hazard class(es)** 6.1  
**14.4. Packing group** II

### ADR

**14.1. UN number** UN1671  
**14.2. UN proper shipping name** PHENOL, SOLID  
**14.3. Transport hazard class(es)** 6.1  
**14.4. Packing group** II

### IATA

**14.1. UN number** UN1671  
**14.2. UN proper shipping name** PHENOL, SOLID  
**14.3. Transport hazard class(es)** 6.1  
**14.4. Packing group** II

**14.5. Environmental hazards** Dangerous for the environment  
Product is a marine pollutant according to the criteria set by IMDG/IMO

**14.6. Special precautions for user** No special precautions required

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable, packaged goods

## SECTION 15: REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### International Inventories

Australia Complete Regulatory Information contained in following SDS's X = listed China  
Canada The product is classified and labeled according to EC directives or corresponding  
national laws The product is classified and labeled in accordance with Directive 1999/45/EC  
TSCA Korea Philippines Japan U.S.A. (TSCA) Canada (DSL/NDSL) Europe  
(EINECS/ELINCS/NLP) Australia (AICS) Korea (ECL) China (IECSC) Japan (ENCS)  
Philippines (PICCS)

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	IECSC	AICS	KECL
Phenol	203-632-7	-		X	X	-	X	X	X	X	X

#### National Regulations

#### WGK Classification

Hazardous to water/Class 2

Component	Germany - Water Classification (VwVwS)	Germany - TA-Luft Class
Phenol	WGK 2	Class I : 20 mg/m <sup>3</sup> (Massenkonzentration)

Component	France - INRS (Tables of occupational diseases)
Phenol	Tableaux des maladies professionnelles (TMP) - RG 14

Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment.

Take note of Dir 94/33/EC on the protection of young people at work

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

### 15.2. Chemical safety assessment

FSUP2320

# SAFETY DATA SHEET

Phenol

Revision Date Oct-2018

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

## SECTION 16: OTHER INFORMATION

### Full text of H-Statements referred to under sections 2 and 3

H301 - Toxic if swallowed  
H311 - Toxic in contact with skin  
H314 - Causes severe skin burns and eye damage  
H318 - Causes serious eye damage  
H331 - Toxic if inhaled  
H341 - Suspected of causing genetic defects  
H411 - Toxic to aquatic life with long lasting effects

### Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**NOEC** - No Observed Effect Concentration

**PBT** - Persistent, Bioaccumulative, Toxic

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

### **Key literature references and sources for data**

Suppliers safety data sheet, Chemadviser - LOLI, Merck index, RTECS

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer

**PNEC** - Predicted No Effect Concentration

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - Volatile Organic Compounds

### **Training Advice**

Chemical incident response training.

**Creation Date** Oct-2013

**Next Revision Date** Oct-2023

**Revision Summary** SDS section 1 updated and update of Format.

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

### **Disclaimer**

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**End of Safety Data Sheet**