

### SECTION 1: Identification

#### 1.1. Identification

|                |  |
|----------------|--|
| Product form   | : Substance  |
| Substance name | : Phenolphthalein, ACS   |
| CAS No         | : 77-09-8  |
| Product code   | : LC18198  |
| Formula        | : C <sub>20</sub> H <sub>14</sub> O <sub>4</sub>   |
| Synonyms       | : 1(3H)-isobenzofuranone, 3,3-bis(4-hydroxyphenyl)- / 2,2-bis(para-hydroxyphenyl) phthalide / 2,2-bis(p-hydroxyphenyl) phthalide / 2-bis(4-hydroxyphenyl)methylbenzoic acid / 3,3-bis(4-hydroxyphenyl)-1(3H)iso-benzofuranone / 3,3-bis(p-hydroxyphenyl) phthalide |

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

|                              |  |
|------------------------------|--|
| Use of the substance/mixture | : Laboratory chemical<br>Veterinary medicine |
|------------------------------|--|

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

LabChem Inc  
Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court  
Zellienople, PA 16063 - USA  
T 412-826-5230 - F 724-473-0647  
[info@labchem.com](mailto:info@labchem.com) - [www.labchem.com](http://www.labchem.com)

#### 1.4. Emergency telephone number

|                  |  |
|------------------|--|
| Emergency number | : CHEMTREC: 1-800-424-9300 or 011-703-527-3887 |
|------------------|--|

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Carcinogenicity Category 2 H351

Full text of H statements : see section 16

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US)



GHS08

|                                   |  |
|-----------------------------------|--|
| Signal word (GHS-US)              | : Warning  |
| Hazard statements (GHS-US)        | : H351 - Suspected of causing cancer   |
| Precautionary statements (GHS-US) | : P201 - Obtain special instructions before use<br>P202 - Do not handle until all safety precautions have been read and understood<br>P280 - Wear protective gloves, protective clothing, eye protection, face protection<br>P308+P313 - IF exposed or concerned: Get medical advice/attention<br>P405 - Store locked up<br>P501 - Dispose of contents/container to comply with local, state and federal regulations |

#### 2.3. Other hazards

|  |                     |
|--|---------------------|
| Other hazards not contributing to the classification | : Combustible Dust. |
|--|---------------------|

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/Information on ingredients

#### 3.1. Substance

|                |                    |
|----------------|--------------------|
| Substance type | : Mono-constituent |
|----------------|--------------------|

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| Name                                       | Product identifier | %   | GHS-US classification |
|--|--------------------|-----|-----------------------|
| Phenolphthalein, ACS<br>(Main constituent) | (CAS No) 77-09-8   | 100 | Carc. 2, H351         |

Full text of hazard classes and H-statements : see section 16

### 3.2. Mixture

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures general : Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.
- First-aid measures after inhalation : Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
- First-aid measures after skin contact : Rinse with water. Soap may be used. Take victim to a doctor if irritation persists.
- First-aid measures after eye contact : Rinse with water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.
- First-aid measures after ingestion : Rinse mouth with water. Call Poison Information Centre ([www.big.be/antigif.htm](http://www.big.be/antigif.htm)). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital.

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

- Symptoms/injuries after inhalation : AFTER INHALATION OF DUST: Slight irritation. Coughing.
- Symptoms/injuries after skin contact : Slight irritation.
- Symptoms/injuries after eye contact : Slight irritation.
- Symptoms/injuries after ingestion : AFTER ABSORPTION OF LARGE QUANTITIES: Diarrhoea. Gastrointestinal complaints. Urine discolouration.
- Chronic symptoms : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Red skin. Swelling of the skin. Itching. Skin rash/inflammation.

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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Water spray. ABC powder. Carbon dioxide.
- Unsuitable extinguishing media : No unsuitable extinguishing media known.

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

- Fire hazard : DIRECT FIRE HAZARD. Most organic solids may burn if strongly heated.
- Explosion hazard : DIRECT EXPLOSION HAZARD. Most organic solids are liable to dust explosion hazard. INDIRECT EXPLOSION HAZARD. Dust cloud can be ignited by a spark. Reactions with explosion hazards: see "Reactivity Hazard".
- Reactivity : Upon combustion: CO and CO<sub>2</sub> are formed. Violent to explosive reaction with (strong) oxidizers and with (strong) reducers.

### 5.3. Advice for firefighters

- Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: have neighbourhood close doors and windows.
- Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.
- Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

- Protective equipment : Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus. See "Material-Handling" to select protective clothing.
- Emergency procedures : Mark the danger area. Prevent dust cloud formation. No naked flames. Wash contaminated clothes.

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Measures in case of dust release : In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows.

### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Do not breathe dust.  
Emergency procedures : Stop release. Ventilate area. If a major spill occurs, all personnel should be immediately evacuated and the area ventilated.

### 6.2. Environmental precautions

Prevent soil and water pollution. Prevent spreading in sewers.

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

For containment : Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Dam up the solid spill. Knock down/dilute dust cloud with water spray. Provide equipment/receptacles with earthing.  
Methods for cleaning up : Stop dust cloud by covering with sand/earth. Scoop solid spill into closing containers. Carefully collect the spill/leftovers. Clean contaminated surfaces with a soap solution. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Powdered form: no compressed air for pumping over. Avoid raising dust. Take precautions against electrostatic charges. Keep away from naked flames/heat. Finely divided: spark- and explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Observe strict hygiene. Keep container tightly closed. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.  
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product.

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

Incompatible products : Strong oxidizers. Strong bases.  
Incompatible materials : Generation of airborne dust.  
Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.  
Prohibitions on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. reducing agents.  
Storage area : Store in a dry area. Store in a dark area. Keep container in a well-ventilated place. Provide the tank with earthing. Meet the legal requirements.  
Special rules on packaging : SPECIAL REQUIREMENTS: closing. clean. opaque. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.  
Packaging materials : SUITABLE MATERIAL: No data available. MATERIAL TO AVOID: No data available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.  
Personal protective equipment : Safety glasses. Gloves. Dust production: dust mask with filter type P1. Chemical resistant apron.



Materials for protective clothing : GIVE EXCELLENT RESISTANCE: No data available. GIVE GOOD RESISTANCE: natural rubber. neoprene. nitrile rubber. PVC. GIVE LESS RESISTANCE: No data available. GIVE POOR RESISTANCE: No data available.

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|                          |   |
|--------------------------|---|
| Hand protection          | : Gloves.   |
| Eye protection           | : Safety glasses. In case of dust production: protective goggles.   |
| Skin and body protection | : Protective clothing.  |
| Respiratory protection   | : Dust production: dust mask with filter type P3. High dust production: self-contained breathing apparatus. |

### SECTION 9: Physical and chemical properties

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

|   |  |
|---|--|
| Physical state                              | : Solid  |
| Appearance                                  | : Crystalline solid. Crystalline powder.   |
| Color                                       | : White to light yellow  |
| Odor  | : Odorless   |
| Odor threshold                              | : No data available  |
| pH  | : No data available  |
| Melting point                               | : 263 °C   |
| Freezing point                              | : No data available  |
| Boiling point                               | : > 450 °C   |
| Flash point                                 | : No data available  |
| Relative evaporation rate (butyl acetate=1) | : No data available  |
| Flammability (solid, gas)                   | : No data available  |
| Vapor pressure                              | : < 0.00001 hPa  |
| Relative vapor density at 20 °C             | : No data available  |
| Relative density                            | : 1.3  |
| Specific gravity / density                  | : 1277 kg/m <sup>3</sup>   |
| Molecular mass                              | : 318.33 g/mol   |
| Solubility                                  | : Insoluble in water. Substance sinks in water. Soluble in ethanol. Soluble in acetone. Soluble in toluene. Soluble in bases.<br>Water: 0.000336 g/100ml<br>Ethanol: 8.5 g/100ml<br>Ether: 1 g/100ml |
| Log Pow                                     | : 2.41 (Experimental value)  |
| Auto-ignition temperature                   | : No data available  |
| Decomposition temperature                   | : No data available  |
| Viscosity, kinematic                        | : No data available  |
| Viscosity, dynamic                          | : No data available  |
| Explosion limits                            | : No data available  |
| Explosive properties                        | : No data available  |
| Oxidizing properties                        | : No data available  |

#### 9.2. Other information

|                  |                                 |
|------------------|---------------------------------|
| VOC content      | : 0 %                           |
| Other properties | : Substance has basic reaction. |

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Upon combustion: CO and CO<sub>2</sub> are formed. Violent to explosive reaction with (strong) oxidizers and with (strong) reducers.

#### 10.2. Chemical stability

Unstable on exposure to light.

#### 10.3. Possibility of hazardous reactions

Not established.

#### 10.4. Conditions to avoid

Avoid dust formation. High temperature. Incompatible materials.

#### 10.5. Incompatible materials

Strong oxidizers. Strong bases.

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### 10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Likely routes of exposure : Inhalation; Skin and eye contact  
Acute toxicity : Not classified  
Skin corrosion/irritation : Not classified  
Serious eye damage/irritation : Not classified  
Respiratory or skin sensitization : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Suspected of causing cancer.

#### Phenolphthalein, ACS (77-09-8)

|  |   |
|--|---|
| IARC group   | 2B - Possibly carcinogenic to humans  |
| Reproductive toxicity                              | : Not classified  |
| Specific target organ toxicity (single exposure)   | : Not classified  |
| Specific target organ toxicity (repeated exposure) | : Not classified  |
| Aspiration hazard                                  | : Not classified  |
| Symptoms/injuries after inhalation                 | : AFTER INHALATION OF DUST: Slight irritation. Coughing.  |
| Symptoms/injuries after skin contact               | : Slight irritation.  |
| Symptoms/injuries after eye contact                | : Slight irritation.  |
| Symptoms/injuries after ingestion                  | : AFTER ABSORPTION OF LARGE QUANTITIES: Diarrhoea. Gastrointestinal complaints. Urine discolouration.       |
| Chronic symptoms                                   | : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Red skin. Swelling of the skin. Itching. Skin rash/inflammation. |

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.  
Ecology - air : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). Not included in the list of substances which may contribute to the greenhouse effect (Regulation (EC) No 842/2006). TA-Luft Klasse 5.2.7.1.1/II.  
Ecology - water : Severe water pollutant (surface water). Slightly harmful to invertebrates (Daphnia) (EC50 > 100 mg/l). Slightly harmful to algae (EC50 (72h) > 100 mg/l). pH shift.

#### Phenolphthalein, ACS (77-09-8)

|                         |   |
|-------------------------|---|
| EC50 Daphnia 1          | > 100 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value) |
| Threshold limit algae 1 | 8.9 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Desmodesmus subspicatus; Static system; Fresh water; Experimental value)  |

### 12.2. Persistence and degradability

#### Phenolphthalein, ACS (77-09-8)

|                               |   |
|-------------------------------|---|
| Persistence and degradability | Readily biodegradable in water. No test data on mobility of the substance available. Photodegradation in the air. |
|-------------------------------|---|

### 12.3. Bioaccumulative potential

#### Phenolphthalein, ACS (77-09-8)

|                           |  |
|---------------------------|--|
| Log Pow                   | 2.41 (Experimental value)                        |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |

### 12.4. Mobility in soil

No additional information available

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### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Dissolve or mix with a combustible solvent. Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber with energy recovery. Do not discharge into drains or the environment.

Additional information : LWCA (the Netherlands): KGA category 03. Hazardous waste according to Directive 2008/98/EC.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Not regulated

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### Phenolphthalein, ACS (77-09-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Subject to reporting requirements of United States SARA Section 313

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

|                      |                |      |
|----------------------|----------------|------|
| Phenolphthalein, ACS | CAS No 77-09-8 | 100% |
|----------------------|----------------|------|

### 15.2. International regulations

#### CANADA

#### Phenolphthalein, ACS (77-09-8)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification : Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

#### EU-Regulations

No additional information available

#### National regulations

#### Phenolphthalein, ACS (77-09-8)

Listed on the Canadian IDL (Ingredient Disclosure List)

### 15.3. US State regulations

#### Phenolphthalein, ACS (77-09-8)

|   |     |
|---|-----|
| U.S. - California - Proposition 65 - Carcinogens List | Yes |
|---|-----|

|   |    |
|---|----|
| U.S. - California - Proposition 65 - Developmental Toxicity | No |
|---|----|

|   |    |
|---|----|
| U.S. - California - Proposition 65 - Reproductive Toxicity - Female | No |
|---|----|

|   |    |
|---|----|
| U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No |
|---|----|

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California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer, developmental and/or reproductive harm

### SECTION 16: Other information

Revision date : 12/12/2016

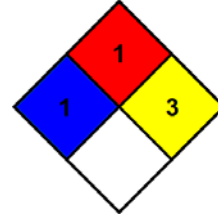
Full text of H-phrases: see section 16:

|      |                             |
|------|-----------------------------|
| H351 | Suspected of causing cancer |
|------|-----------------------------|

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard : 1 - Must be preheated before ignition can occur.

NFPA reactivity : 3 - Capable of detonation or explosive reaction, but requires a strong initiating source or must be heated under confinement before initiation, or reacts explosively with water.



#### HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 0 Minimal Hazard - Materials that will not burn

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection : E  
E - Safety glasses, Gloves, Dust respirator

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