### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

<table>
<thead>
<tr>
<th>Product form</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance name</td>
<td>Phenolphthalein</td>
</tr>
<tr>
<td>CAS No</td>
<td>77-09-8</td>
</tr>
<tr>
<td>Product code</td>
<td>LC18198</td>
</tr>
<tr>
<td>Formula</td>
<td>C20H14O4</td>
</tr>
<tr>
<td>Synonyms</td>
<td>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</td>
</tr>
<tr>
<td>BIG no</td>
<td>15948</td>
</tr>
</tbody>
</table>

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

- Use of the substance/mixture: Laboratory chemical, 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  
Zelienople, PA 16063 - USA  
T 412-826-5230 - F 724-473-0647  
info@labchem.com - www.labchem.com

#### 1.4. Emergency telephone number

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

### SECTION 2: Hazards identification

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

**GHS-US classification**

- Carc. 2, H351

#### 2.2. Label elements

**GHS-US labelling**

- Hazard pictograms (GHS-US): ![GHS08]

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

#### 2.3. Other hazards

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

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

No data available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier (CAS No)</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenolphthalein</td>
<td>77-09-8</td>
<td>100</td>
<td>Carc. 2, H351</td>
</tr>
</tbody>
</table>

(Main constituent)

Full text of H-phrases: see section 16
SECTION 4: First aid measures

4.1. Description of first aid measures


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.bis.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 skin contact: Slight irritation.

Symptoms/injuries after eye contact: Slight irritation.


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 CO2 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.


SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel


Emergency procedures: Mark the danger area. Prevent dust cloud formation. No naked flames. Wash contaminated clothes.

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


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.


Prohibitions on mixed storage: 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.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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.

Materials for protective clothing: GIVE GOOD RESISTANCE: natural rubber. neoprene. nitrile rubber. PVC.

Hand protection: Gloves.


Skin and body protection: Protective clothing.


SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Solid

Appearance: Crystalline solid. Crystalline powder.

Molecular mass: 318.33 g/mol

Colour: White to light yellow.

Odour: Odourless.

Odour threshold: No data available

pH: No data available

Relative evaporation rate (butylacetate=1): No data available

Melting point: 263 °C

Freezing point: No data available

Boiling point: No data available

Flash point: No data available
Phenolphthalein
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.3</td>
</tr>
<tr>
<td>Density</td>
<td>1300 kg/m³</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in water. Substance sinks in water. Soluble in ethanol. Soluble in acetone. Soluble in toluene. Soluble in bases. Water: 0.006 g/100ml Ethanol: 8.5 g/100ml Ether: 1 g/100ml</td>
</tr>
<tr>
<td>Log Pow</td>
<td>2.41 (Experimental value)</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
</tbody>
</table>

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 CO2 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.

10.6. Hazardous decomposition products
Carbon dioxide. Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Effect</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Not classified</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Not classified</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation</td>
<td>Not classified</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Suspected of causing cancer.</td>
</tr>
</tbody>
</table>

Phenolphthalein (77-09-8)

IARC group                                    | 2B                                           |
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.                          |
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**SECTION 12: Ecological information**

**12.1. Toxicity**
Ecology - air : TA-Luft Klasse 5.2.7.1.1/II.
Ecology - water : Severe water pollutant (surface water). pH shift. Insufficient data available on ecotoxicity.

**12.2. Persistence and degradability**

| Phenolphthalein (77-09-8) |
| Persistence and degradability | Biodegradability in water: no data available. Photodegradation in the air. |

**12.3. Bioaccumulative potential**

| Phenolphthalein (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

**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. Dissolve or mix with a combustible solvent. Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber with energy recovery.

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

**SECTION 14: Transport information**

**In accordance with DOT**

**14.1. UN number**
No dangerous good in sense of transport regulations

**14.2. UN proper shipping name**
Not applicable

**14.3. Additional information**
Other information : No supplementary information available.
State during transport (ADR-RID) : Rail and road transport: not subject to ADR-RID.

**Overland transport**
No additional information available

**Transport by sea**
No additional information available

**Air transport**
No additional information available

**SECTION 15: Regulatory information**

**15.1. US Federal regulations**

| Phenolphthalein (77-09-8) |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory |
| Listed on SARA Section 313 (Specific toxic chemical listings) |

**15.2. International regulations**

**CANADA**

| Phenolphthalein (77-09-8) |
| Listed on the Canadian DSL (Domestic Substances List) inventory. |
| WHMIS Classification | Class D Division 2 Subdivision A - Very toxic material causing other toxic effects |
Phenolphthalein
Safety Data Sheet

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Carc. 1B  H350
Muta. 2   H341
Repr. 2   H361f
Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC
Carc.Cat.2; R45
Muta.Cat.3; R68
Repr.Cat.3; R62
Full text of R-phrases: see section 16

15.2.2. National regulations

Phenolphthalein (77-09-8)
Listed on the Canadian Ingredient Disclosure List

15.3. US State regulations
Phenolphthalein(77-09-8)
U.S. - California - Proposition 65 - Carcinogens List Yes

SECTION 16: Other information

Full text of H-phrases: see section 16:

<table>
<thead>
<tr>
<th>Carc. 2</th>
<th>Carcinogenicity, Category 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>H351</td>
<td>Suspected of causing cancer</td>
</tr>
</tbody>
</table>

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
Physical: 0 Minimal Hazard
Personal Protection: E

SDS US (GHS HazCom 2012)

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