

# Safety Data Sheet acc. to OSHA HCS

Printing date 01/19/2017

Reviewed on 01/19/2017

## 1 Identification

- **Product identifier**
- **Product Name:** Phthalates in Polyethylene Standard
- **Part Number:** CRM-PE001
- **Application of the substance / the mixture** Certified Reference Material
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
SPEX CertiPrep, LLC.  
203 Norcross Ave, Metuchen,  
NJ 08840 USA
- **Information department:** product safety department
- **Emergency telephone number:**  
Emergency Phone Number (24 hours)  
CHEMTREC (800-424-9300)  
Outside US: 703-527-3887

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.

Repr. 1 H360 May damage fertility or the unborn child.

- **Label elements**

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

dimethyl phthalate

BBP

dibutyl phthalate

bis(2-ethylhexyl) phthalate

- **Hazard statements**

H351 Suspected of causing cancer.

H360 May damage fertility or the unborn child.

- **Precautionary statements**

Wear protective gloves/protective clothing/eye protection/face protection.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

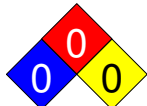
IF exposed or concerned: Get medical advice/attention.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



Health = 0

Fire = 0

Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = 0

Fire = 0

Reactivity = 0

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

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· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

|          |                             |      |
|----------|-----------------------------|------|
| 117-84-0 | Di-n-octyl Phthalate        | 0.3% |
| 85-68-7  | BBP                         | 0.3% |
| 84-74-2  | dibutyl phthalate           | 0.3% |
| 117-81-7 | bis(2-ethylhexyl) phthalate | 0.3% |

- **Chemical identification of the substance/preparation**

|            |                          |       |
|------------|--------------------------|-------|
| 9002-88-4  | Polyethylene low density | 92.2% |
| 28553-12-0 | di-"isononyl" phthalate  | 3.0%  |
| 26761-40-0 | di-"isodecyl" phthalate  | 3.0%  |
| 84-66-2    | diethyl phthalate        | 0.3%  |
| 131-11-3   | dimethyl phthalate       | 0.3%  |

### 4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for Doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**  
Do not allow product to reach sewage system or any water course.  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

- **PAC-I:**

|           |                             |                      |
|-----------|-----------------------------|----------------------|
| 9002-88-4 | Polyethylene low density    | 16 mg/m <sup>3</sup> |
| 117-84-0  | Di-n-octyl Phthalate        | 41 mg/m <sup>3</sup> |
| 84-66-2   | diethyl phthalate           | 15 mg/m <sup>3</sup> |
| 131-11-3  | dimethyl phthalate          | 15 mg/m <sup>3</sup> |
| 85-68-7   | BBP                         | 15 mg/m <sup>3</sup> |
| 84-74-2   | dibutyl phthalate           | 15 mg/m <sup>3</sup> |
| 117-81-7  | bis(2-ethylhexyl) phthalate | 10 mg/m <sup>3</sup> |

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|                 |                             |                          |
|-----------------|-----------------------------|--------------------------|
| <b>· PAC-2:</b> |                             |                          |
| 9002-88-4       | Polyethylene low density    | 170 mg/m <sup>3</sup>    |
| 117-84-0        | Di-n-octyl Phthalate        | 450 mg/m <sup>3</sup>    |
| 84-66-2         | diethyl phthalate           | 300 mg/m <sup>3</sup>    |
| 131-11-3        | dimethyl phthalate          | 1,600 mg/m <sup>3</sup>  |
| 85-68-7         | BBP                         | 77 mg/m <sup>3</sup>     |
| 84-74-2         | dibutyl phthalate           | 1,600 mg/m <sup>3</sup>  |
| 117-81-7        | bis(2-ethylhexyl) phthalate | 1,000 mg/m <sup>3</sup>  |
| <b>· PAC-3:</b> |                             |                          |
| 9002-88-4       | Polyethylene low density    | 1,000 mg/m <sup>3</sup>  |
| 117-84-0        | Di-n-octyl Phthalate        | 11000* mg/m <sup>3</sup> |
| 84-66-2         | diethyl phthalate           | 1,800 mg/m <sup>3</sup>  |
| 131-11-3        | dimethyl phthalate          | 9300* mg/m <sup>3</sup>  |
| 85-68-7         | BBP                         | 460 mg/m <sup>3</sup>    |
| 84-74-2         | dibutyl phthalate           | 9300* mg/m <sup>3</sup>  |
| 117-81-7        | bis(2-ethylhexyl) phthalate | 6,100 mg/m <sup>3</sup>  |

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.  
At this time, the other constituents have no known exposure limits.

|                                             |                                                                                                           |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <b>84-74-2 dibutyl phthalate</b>            |                                                                                                           |
| PEL                                         | Long-term value: 5 mg/m <sup>3</sup>                                                                      |
| REL                                         | Long-term value: 5 mg/m <sup>3</sup>                                                                      |
| TLV                                         | Long-term value: 5 mg/m <sup>3</sup>                                                                      |
| <b>117-81-7 bis(2-ethylhexyl) phthalate</b> |                                                                                                           |
| PEL                                         | Long-term value: 5 mg/m <sup>3</sup>                                                                      |
| REL                                         | Short-term value: 10 mg/m <sup>3</sup><br>Long-term value: 5 mg/m <sup>3</sup><br>See Pocket Guide App. A |
| TLV                                         | Long-term value: 5 mg/m <sup>3</sup>                                                                      |

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:**  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Goggles recommended during refilling.

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
  - Form: Liquid
  - Color: According to product specification
- **Odor:** Characteristic
- **Odour Threshold:** Not applicable.
- **pH-value:** Not applicable.
- **Change in condition**
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: Undetermined.
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:**
- **Decomposition temperature:** Not applicable.
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
  - Lower: Not applicable.
  - Upper: Not applicable.
- **Vapor pressure:** Not determined.
- **Density** Not applicable.
- **Relative density** Not applicable.
- **Vapor density** Not applicable.
- **Evaporation rate** Not applicable.
- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix.
- **Partition coefficient (n-octanol/water):** Not applicable.
- **Viscosity:**
  - Dynamic: Not applicable.
  - Kinematic: Not applicable.
- **Solvent content:**
  - Organic solvents: 0.0 %
- **Solids content:** 95.2 %
- **Other information** No further relevant information available.

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

US

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### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

#### 85-68-7 BBP

|      |      |                  |
|------|------|------------------|
| Oral | LD50 | 2330 mg/kg (rat) |
|------|------|------------------|

#### 84-74-2 dibutyl phthalate

|      |      |                  |
|------|------|------------------|
| Oral | LD50 | 8000 mg/kg (rat) |
|------|------|------------------|

|        |      |                      |
|--------|------|----------------------|
| Dermal | LD50 | 20000 mg/kg (rabbit) |
|--------|------|----------------------|

#### 117-81-7 bis(2-ethylhexyl) phthalate

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 30600 mg/kg (rat) |
|------|------|-------------------|

|        |      |                      |
|--------|------|----------------------|
| Dermal | LD50 | 25000 mg/kg (rabbit) |
|--------|------|----------------------|

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

|           |                          |   |
|-----------|--------------------------|---|
| 9002-88-4 | Polyethylene low density | 3 |
|-----------|--------------------------|---|

|         |     |   |
|---------|-----|---|
| 85-68-7 | BBP | 3 |
|---------|-----|---|

|          |                             |    |
|----------|-----------------------------|----|
| 117-81-7 | bis(2-ethylhexyl) phthalate | 2B |
|----------|-----------------------------|----|

· **NTP (National Toxicology Program)**

|          |                             |   |
|----------|-----------------------------|---|
| 117-81-7 | bis(2-ethylhexyl) phthalate | R |
|----------|-----------------------------|---|

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
Harmful to aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

- **UN-Number**
- **DOT, ADR, IMDG, IATA**

Not Regulated

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|                                                                           |                 |
|---------------------------------------------------------------------------|-----------------|
| · UN proper shipping name<br>· DOT, ADR, IMDG, IATA                       | Not Regulated   |
| · Transport hazard class(es)<br>· DOT, ADR, IMDG, IATA<br>· Class         | Not Regulated   |
| · Packing group<br>· DOT, ADR, IMDG, IATA                                 | Not Regulated   |
| · Environmental hazards:                                                  | Not applicable. |
| · Special precautions for user                                            | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation":                                                  | Not Regulated   |

### 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

|                                                                    |                                                                                          |    |
|--------------------------------------------------------------------|------------------------------------------------------------------------------------------|----|
| · Section 355 (extremely hazardous substances):                    | None of the ingredients is listed.                                                       |    |
| · Section 313 (Specific toxic chemical listings):                  |                                                                                          |    |
| 131-11-3                                                           | dimethyl phthalate                                                                       |    |
| 84-74-2                                                            | dibutyl phthalate                                                                        |    |
| 117-81-7                                                           | bis(2-ethylhexyl) phthalate                                                              |    |
| · TSCA (Toxic Substances Control Act):                             | All ingredients are listed.                                                              |    |
| · Proposition 65                                                   |                                                                                          |    |
| · Chemicals known to cause cancer:                                 |                                                                                          |    |
| 28553-12-0                                                         | di-"isononyl" phthalate                                                                  |    |
| 117-81-7                                                           | bis(2-ethylhexyl) phthalate                                                              |    |
| · Chemicals known to cause reproductive toxicity for females:      |                                                                                          |    |
| 84-74-2                                                            | dibutyl phthalate                                                                        |    |
| · Chemicals known to cause reproductive toxicity for males:        |                                                                                          |    |
| 84-74-2                                                            | dibutyl phthalate                                                                        |    |
| 117-81-7                                                           | bis(2-ethylhexyl) phthalate                                                              |    |
| · Chemicals known to cause developmental toxicity:                 |                                                                                          |    |
| 26761-40-0                                                         | di-"isodecyl" phthalate                                                                  |    |
| 85-68-7                                                            | BBP                                                                                      |    |
| 84-74-2                                                            | dibutyl phthalate                                                                        |    |
| 117-81-7                                                           | bis(2-ethylhexyl) phthalate                                                              |    |
| · Carcinogenic categories                                          |                                                                                          |    |
| · EPA (Environmental Protection Agency)                            |                                                                                          |    |
| 84-66-2                                                            | diethyl phthalate                                                                        | D  |
| 131-11-3                                                           | dimethyl phthalate                                                                       | D  |
| 85-68-7                                                            | BBP                                                                                      | C  |
| 84-74-2                                                            | dibutyl phthalate                                                                        | D  |
| 117-81-7                                                           | bis(2-ethylhexyl) phthalate                                                              | B2 |
| · TLV (Threshold Limit Value established by ACGIH)                 |                                                                                          |    |
| 84-66-2                                                            | diethyl phthalate                                                                        | A4 |
| 117-81-7                                                           | bis(2-ethylhexyl) phthalate                                                              | A3 |
| · NIOSH-Ca (National Institute for Occupational Safety and Health) |                                                                                          |    |
| 117-81-7                                                           | bis(2-ethylhexyl) phthalate                                                              |    |
| · GHS label elements                                               | The product is classified and labeled according to the Globally Harmonized System (GHS). |    |

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· **Hazard pictograms**



GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

*dimethyl phthalate*

*BBP*

*dibutyl phthalate*

*bis(2-ethylhexyl) phthalate*

· **Hazard statements**

*H351 Suspected of causing cancer.*

*H360 May damage fertility or the unborn child.*

· **Precautionary statements**

*Wear protective gloves/protective clothing/eye protection/face protection.*

*Obtain special instructions before use.*

*Do not handle until all safety precautions have been read and understood.*

*IF exposed or concerned: Get medical advice/attention.*

*Store locked up.*

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· **Department issuing SDS:** product safety department

· **Contact:**

*SPEX CertiPrep, LLC.*

*1-732-549-7144*

· **Date of preparation / last revision** 01/19/2017 / -

· **Abbreviations and acronyms:**

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*NIOSH: National Institute for Occupational Safety*

*OSHA: Occupational Safety & Health*

*TLV: Threshold Limit Value*

*PEL: Permissible Exposure Limit*

*REL: Recommended Exposure Limit*

*Carc. 2: Carcinogenicity – Category 2*

*Repr. 1: Reproductive toxicity – Category 1*