Printing date 02/14/2019

Reviewed on 04/05/2018

1 Identification

- · Product identifier
- · Trade name: Dioctyl Phthalate ≥99.5%
- Article number: D3505
- · CAS Number:
- 117-81-7
- · EC number: 204-211-0
- · Index number: 607-317-00-9
- · Details of the supplier of the safety data sheet · Manufacturer/Supplier: Aqua Solutions, Inc. 6913 Highway 225 DEER PARK, TX 77536 USA 800-256-2586
- · Information department: Technical Coordinator Sherman Nelson sherman@aquasolutions.org
- · Emergency telephone number: Chemtrec: 800-424-9300 Canutec: 613-996-6666

2 Hazard(s) identification

· Classification of the substance or mixture



Carc. 2 H351 Suspected of causing cancer.

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

· Label elements

• GHS label elements The substance is classified and labeled according to the Globally Harmonized System (GHS). · Hazard pictograms



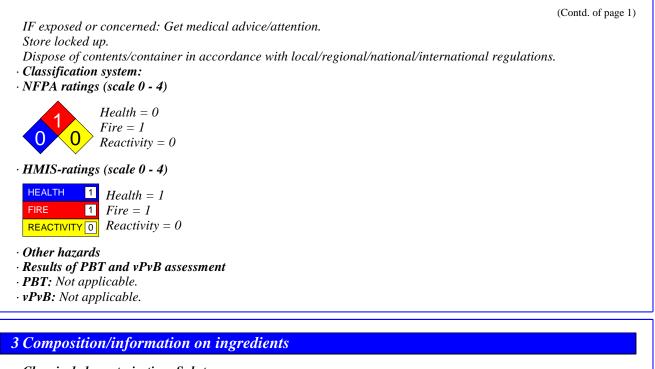
· Signal word Danger · Hazard statements Suspected of causing cancer. May damage fertility or the unborn child. · Precautionary statements If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.

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- \cdot Chemical characterization: Substances
- · CAS No. Description
- 117-81-7 Dioctyl Phthalate
- · Identification number(s)
- EC number: 204-211-0
- · Index number: 607-317-00-9

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: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

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6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions: 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). Dispose contaminated material as waste according to item 13.
- · 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-1: 10 mg/m³
- · PAC-2: 1,000 mg/m³
- · PAC-3: 6,100 mg/m³

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:

CAS: 117-81-7 Dioctyl Phthalate

PEL Long-term value: 5 mg/m³ REL Short-term value: 10 mg/m³ Long-term value: 5 mg/m³ See Pocket Guide App. A

See I ockei Guide App. A

TLV Long-term value: 5 mg/m³

• Additional information: The lists that were valid during the creation were used as basis.

· Exposure controls

- · Personal protective equipment:
- General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. 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.

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- 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 \cdot **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.
- · 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.
- · Body protection: Protective work clothing

| Information on basic physical and c | hemical properties | |
|---|---|--|
| General Information | | |
| Appearance: | | |
| Form: | Fluid | |
| Color: | Colorless | |
| Odor: | Odorless Not determined | |
| Odor threshold: | Not determined. | |
| pH-value: | Not determined. | |
| Change in condition | | |
| Melting point/Melting range: | -46 °C (-50.8 °F) | |
| Boiling point/Boiling range: | 384 °C (723.2 °F) | |
| Flash point: | 207 °C (404.6 °F) | |
| Flammability (solid, gaseous): | Not applicable. | |
| Ignition temperature: | 370 °C (698 °F) | |
| Decomposition temperature: | Not determined. | |
| Auto igniting: | Not determined. | |
| Danger of explosion: | Product does not present an explosion hazard. | |
| Explosion limits: | | |
| Lower: | 0.15 Vol % | |
| Upper: | 0.18 Vol % | |
| Vapor pressure at 20 $^{\circ}C$ (68 $^{\circ}F$): | <0.001 hPa (>0 mm Hg) | |
| <i>Density at 20 °C (68 °F):</i> | 0.985 g/cm ³ (8.21983 lbs/gal) | |
| Relative density | Not determined. | |
| Vapor density | Not determined. | |
| Evaporation rate | Not determined. | |
| Solubility in / Miscibility with | | |
| Water at 20 •C (68 •F): | <0.1 g/l | |
| Partition coefficient (n-octanol/wate | r): Not determined. | |
| Viscosity: | | |
| <i>Dynamic at 20 •C (68 •F):</i> | 77-82 mPas | |
| Kinematic: | Not determined. | |

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• 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.

11 Toxicological information

· Information on toxicological effects

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

| | • | - |
|--------------------|---------------------------|-----------------------|
| Oral | LD50 | 30,000 mg/kg (rat) |
| Dermal | LD50 | 25,000 mg/kg (rabbit) |
| Irritation of skin | Skin Corrosion/Irritation | (rabbit) |

Irritation of skin Skin Corrosion/Irritation (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) 2B
- · NTP (National Toxicology Program) R
- · OSHA-Ca (Occupational Safety & Health Administration) Substance is not 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.
- Additional ecological information:
- · General notes:
- Water hazard class 1 (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · **vPvB**: Not applicable.
- · Other adverse effects No further relevant information available.

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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.

| UN-Number DOT, IMDG, IATA | UN3082 |
|--|---|
| UN proper shipping name DOT | Environmentally hazardous substances, liquid, n.o.s. (Diocty |
| IMDG, IATA | Phthalate) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUIE N.O.S. (Dioctyl Phthalate) |
| Transport hazard class(es) | |
| DOT, IMDG | |
| | |
| Class Label | 9 Miscellaneous dangerous substances and articles |
| Class Label | 9 Miscellaneous dangerous substances and articles 9 |
| Packing group DOT, IMDG, IATA | 111 |
| Environmental hazards: Marine pollutant: Special marking (IATA): | No Symbol (fish and tree) |
| Special precautions for user Poison inhalation hazard: | Warning: Miscellaneous dangerous substances and articles No |
| | 90 |
| | F-A,S-F |
| Danger code (Kemler): EMS Number: Stowage Category | A |

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|---|---|
| · Transport/Additional information: | |
| · DOT · Hazardous substance: · Remarks: | 100 lbs, 45.4 kg (bis(2-Ethylhexyl) phthalate |
| · UN ''Model Regulation'': | UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (DIOCTYL PHTHALATE), 9, III |

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture · Sara
- · Section 355 (extremely hazardous substances): Substance is not listed.
- Section 313 (Specific toxic chemical listings): Substance is listed.
- · TSCA (Toxic Substances Control Act):

Dioctyl Phthalate

· Proposition 65

- · Chemicals known to cause cancer: Substance is listed.
- · Chemicals known to cause reproductive toxicity for females: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for males: Substance is listed.
- · Chemicals known to cause developmental toxicity: Substance is listed.

· Carcinogenic categories

- · EPA (Environmental Protection Agency) B2
- TLV (Threshold Limit Value established by ACGIH) A3
- · NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is listed.
- · GHS label elements The substance is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms



· Signal word Danger

- Hazard statements Suspected of causing cancer.
- May damage fertility or the unborn child.
- · Precautionary statements

If medical advice is needed, have product container or label at hand.

- Keep out of reach of children.
- Read label before use.
- Obtain special instructions before use.

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

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

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.

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| | prmation is based on our present knowledge. However, this shall not constitute a guarantee for opproduct features and shall not establish a legally valid contractual relationship. |
|-------------|---|
| · Departm | ent issuing SDS: Environment protection department. |
| · Contact: | |
| · Date of n | preparation / last revision |
| | 0.2, 02-14-2019: Updated section 9 information and added toxicological information. STN |
| | date for SDS 03-21-2014. STN |
| 02/14/20 | |
| | |
| | tions and acronyms: |
| | ernational Maritime Code for Dangerous Goods |
| | Department of Transportation |
| | rnational Air Transport Association nerican Conference of Governmental Industrial Hygienists |
| | European Inventory of Existing Commercial Chemical Substances |
| | nical Abstracts Service (division of the American Chemical Society) |
| | ional Fire Protection Association (USA) |
| | ardous Materials Identification System (USA) |
| | al concentration, 50 percent |
| LD50: Leth | al dose, 50 percent |
| | stent, Bioaccumulative and Toxic |
| | Persistent and very Bioaccumulative |
| | ttional Institute for Occupational Safety |
| | cupational Safety & Health |
| | hold Limit Value |
| | issible Exposure Limit |
| | mmended Exposure Limit arcinogenicity – Category 2 |
| | arcmogenicity – Category 2 Reproductive toxicity – Category 1B |