

Environmental Information Sheet

Biocetic

Biocetic is a disinfectant that is based on synergistic effect in a per-oxy compound mixture (min of 7% peracetic acid content). Biocetic is to be used for the treatment of pathogenic medical waste. Biocetic has the following advantages:

- Broad microbiological efficacy
- Lowest application concentration
- Efficient at low application temperatures
- Easy to rinse
- Ecologically friendly

This information sheet contains and relies on information found in the literature regarding peracetic acid in a per-oxy compound mixture.

Section	Profile
Persistent, bio-accumulative and toxic substances (PBT)	"Peracetic acid shows a very rapid biodegradation in sewage sludge with a DT50 of 3 minutes at 20 °C. Therefore, peracetic acid does not fulfil the criteria for a persistent compound." Information taken from "Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products Assessment Report – Peracetic Acid" November 2015 Finland
Persistent Organic Pollutant (POP)	"Peracetic acid does not fulfil criteria for being persistent organic pollutant (POP). In addition, peracetic does not have potential for long-range transboundary atmospheric transport." Information taken from "Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products Assessment Report – Peracetic Acid" November 2015 Finland
Emissions to Air	"...the emission of peracetic acid and hydrogen peroxide to air is negligible. Consequently, air is not an environmental compartment concern." Information taken from "Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products Assessment Report – Peracetic Acid" November 2015 Finland

E. Sharony - Environmental Eng. Ltd
Pollution Control– Ecological Planning

Section	Profile
Environmental precautions	<p>Do not allow to enter sewers/surface or ground water (refers to pure Biocetic)</p> <p>Water hazard class 2 (German Regulation); hazardous for water. Do not allow product to reach ground water, water course or sewage system. Must not reach sewage water or drainage ditch undiluted or unneutralized.</p> <p>Above refers to pure Biocetic.</p> <p>Taken from Biocetic MSDS</p>
Risk to Sewage Treatment Plant (STP)	<p>"No measurable effect was observed by Frankfort laboratory personnel on pH and BOD by the use of PAA for disinfection."</p> <p>Information taken from "Alternative Disinfection Methods Fact Sheet: Peracetic Acid. US EPA September 2012"</p>
Risk for Ground Water (when used on agricultural soil)	<p>"... the risk for groundwater contamination by peracetic acid or hydrogen peroxide above the trigger value of 0.1 µg/L as defined in directives 2006/118/EC and 98/83/EC is low."</p> <p>Information taken from "Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products Assessment Report – Peracetic Acid" November 2015 Finland</p>
Disposal Considerations	<p>Waste treatment methods – Must not be disposed together with household garbage.</p> <p>Container disposal – Disposal must be made according to official regulations</p> <p>European waste catalogue – HP8 Corrosive, HP6 Acute Toxicity (for GHS classification)</p>
Mobility	<p>Likely to be mobile in the environment due to its water solubility.</p> <p>Information taken from similar material MSDS.</p>
Special hazards arising from the substance mixture	<p>Carbon oxides</p> <p>Taken from Biocetic MSDS</p>
Biodegradability	<p>Readily biodegradable.</p> <p>Degradability in seawater – 50% within 2 minutes</p> <p>Information taken from "Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products Assessment Report – Peracetic Acid" November 2015 Finland</p>

E. Sharony - Environmental Eng. Ltd
Pollution Control– Ecological Planning

Section	Profile
pH	<p>"It is considered unlikely that peracetic acid treatment would consistently lower the pH of sewage by more than about 1.0 unit, if the dosing system is effective.</p> <p>Information taken from "Efficacy and Environmental Effects of Peracetic Acid as a Sewage Disinfectant" National Rivers Authority, Bristol, UK.</p>
Materials compatibility	<p>Metals - Austenitic CrNi steels (quality at least DIN 1.4301=AISE 304). As it is the case with all acidic/oxidizing disinfectants, stasis disinfection should not be carried out due to the risk of pitting corrosion.</p> <p>Plastics – HDPE, hard PVC, PTFE. Plastic materials should be tested for their suitability in case of need. Softeners for plastics will be slowly oxidized by Biocetic.</p> <p>Seals – as specified in MSDS.</p> <p>Information taken from material MSDS.</p>
Toxicological Data on Ingredients	<p>Peracetic acid - ORAL (LD50): 1026 mg/kg [rat]. DERMAL (LD50): 1957 mg/kg [rat]. Inhalation (4h) – LD50: 24.43 mg/kg [rat]</p> <p>Hydrogen peroxide - ORAL (LD50): 1518 mg/kg [rat]. Inhalation - LD50: 1418 mg/m 4 hours [rat].</p> <p>1-hydroxyethylidene-1,1-diphosphonic acid – Oral – LD50: 3130 mg/kg [rat]</p> <p>Information taken from material MSDS.</p>
Hazards Identification	<p>Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion. Hazardous in case of skin contact (corrosive, sensitizer, permeator), of eye contact (corrosive). Slightly hazardous in case of inhalation (lung sensitizer). Noncorrosive for lungs. Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation. Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.</p> <p>Information taken from similar material MSDS.</p>