

# PRODUCT INFORMATION

## Butafosfan

Item No. 18613

CAS Registry No.: 17316-67-5

Formal Name: *P*-[1-(butylamino)-1-methylethyl]-phosphinic acid

MF: C<sub>7</sub>H<sub>18</sub>NO<sub>2</sub>P

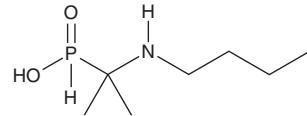
FW: 179.2

Purity: ≥95%

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Butafosfan is supplied as a crystalline solid. A stock solution may be made by dissolving the butafosfan in the solvent of choice, which should be purged with an inert gas. Butafosfan is soluble in the organic solvent ethanol at a concentration of approximately 1 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of butafosfan can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of butafosfan in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Butafosfan is an organic phosphorus supplement that is given, most commonly with cyanocobalamin, to cattle, swine, horses, and poultry for the prevention or treatment of deficiencies.<sup>1</sup> When given with cyanocobalamin, butafosfan alters lipid metabolism, serving to decrease the prevalence of subclinical ketosis.<sup>1-4</sup>

### References

1. Rollin, E., Beghaus, R.D., Rapnicki, P., et al. The effect of injectable butaphosphan and cyanocobalamin on postpartum serum β-hydroxybutyrate, calcium, and phosphorus concentrations in dairy cattle. *J. Dairy Sci.* **93**(3), 978-987 (2010).
2. Nuber, U., van Dorland, H.A., and Bruckmaier, R.M. Effects of butafosfan with or without cyanocobalamin on the metabolism of early lactating cows with subclinical ketosis. *J. Anim. Physiol. Anim. Nutr. (Berl.)* (2015).
3. Kreipe, L., Deniz, A., Bruckmaier, R.M., et al. First report about the mode of action of combined butafosfan and cyanocobalamin on hepatic metabolism in nonketotic early lactating cows. *J. Dairy Sci.* **94**(10), 4904-4914 (2011).
4. Pereira, R.A., Silveira, P.A., Montagner, P., et al. Effect of butaphosphan and cyanocobalamin on postpartum metabolism and milk production in dairy cows. *Animal* **7**(7), 1143-1147 (2013).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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