


PRODUCT CODE- BZYAT2670

 Taj Pharmaceuticals Ltd.
Benzyl Acetone
CAS No. 2550-26-7



02670 BZYAT051 7285 666

Benzyl Acetone

IUPAC Name: 4-phenylbutan-2-one

CAS No. 2550-26-7

Appearance: Colorless liquid

Assay: 99.0%(min)

Density: 0.9875

Odor Type: Floral

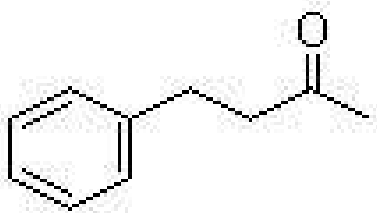
Refractive Index: 1.510-1.513

Boiling Point: 235-237

Flash Point: 98

Soluble In: Alcohol

Insoluble In: Water



Application: Benzyl acetone is mainly used in synthesis of flavor and pharmaceutical

Appearance : yellow crystals

Assay : 99.00 to 100.00 %

Food Chemicals Codex Listed : No

Specific gravity : 0.98500 to 0.99100 @ 25.00 °C.

Pounds per gallon - calc. : 8.196 to 8.246

Refractive index : 1.50900 to 1.51500 @ 20.00 °C.

Boiling point : 235.00 °C. @ 760.00 mm Hg

Boiling point : 115.00 °C. @ 13.00 mm Hg

Flash point : 208.00 °F. TCC (97.78 °C.)

LogP (o/w) : 1.96

Safety :

most important hazard(s) : Xi - Irritant

R 38 - Irritating to skin.

S 02 - Keep out of the reach of children.

S 24 - Avoid contact with skin.

S 36 - Wear suitable protective clothing.

Oral Toxicity(LD50) :

Oral-Rat [sex: M] 3200.00 mg/kg

Oral-Mouse 1590.00 mg/kg

Intraperitoneal-Mouse 583.00 mg/kg

Dermal Toxicity(LD50) : Skin-Rabbit >5000.00 mg/kg

Inhalation Toxicity(LC50) : Not determined



Taj Group of Companies

TAJ PHARMACEUTICALS LIMITED^{INDIA}

"Working for human race"

Abstract:

The emission of a single compound, benzyl acetone (BA, 4-phenyl-2-butanone), is barely detectable during the day in the headspace of flowers of the self-compatible disturbance species *Nicotiana attenuata*, but it increases dramatically (50x) in the evening, becoming the dominant component in the floral headspace. This striking temporal pattern of emission may be sculpted by its potential ecological roles (e.g., synomonal and kairomonal), which we examine here. We measured the nightly BA emissions from individual flowers at six different branch positions on plants receiving either self-pollen or pollen from another genotype and calculated the nightly whole-plant emission. The first flowers produced on a branch have a lower rate of emission than flowers produced later on the same branch; however, cross pollination did not influence the quantity of BA emitted from subsequently produced flowers. Informed by these measures of whole-plant emission, we constructed a device that released BA at a constant rate equivalent to that of a plant with 240 open flowers (an approximate 10x increase in emissions).

This device and a control device were attached to 50 matched pairs of plants growing in a native population in Utah to estimate the fitness consequences of enhanced, constant BA emission. Plants with elevated BA emissions in the field were browsed more frequently than control plants and produced fewer capsules, so that lifetime seed production was reduced by 3.1%. However, both treatment and control plants were heavily attacked by negro bugs (*Cormelina* spp.) and produced light seeds with low viabilities, representing 47% and 23% of the mass per seed and viability, respectively, of unmanipulated plants, which flowered two weeks later in the same population. From glasshouse experiments, we estimated the consequences of out-crossing and attack by negro bugs on seed production. Out-crossing did not significantly affect seed production, seed mass or viability. In contrast, negro bug infestation dramatically decreased seed mass and viability.

We conclude that while the phenological variation in attack rates might have obscured our ability to estimate the fitness consequences of enhanced BA emission, the effects are likely to be dominated by kairomonal rather than synomonal interactions for this self-compatible species.

Benzylacetone can be prepared by hydrogenating benzylideneacetone in the presence of a palladium catalyst on activated carbon and/or a palladium catalyst on aluminum oxide.

This document plus the full buyer / prescribing information, prepared for health professionals can be found at:

<http://www.tajapi.com>

or by contacting the sponsor, Taj Pharmaceuticals Limited., at:
91 022 30601000.

This leaflet was prepared by
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