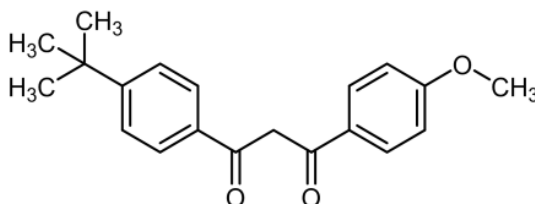


## Technical Data Sheet

10 March 2023

|                           |   |
|---------------------------|---|
| <b>Product name:</b>      | BMDBM   |
| <b>Product Form:</b>      | Solid   |
| <b>Chemical name:</b>     | Butyl Methoxydibenzoylmethane   |
| <b>Synonym:</b>           | UV-502; UV-1798; 4-t-butyl-4'-methoxy-dibenzoylmethane;<br>Avobenzone; 1-[4-(1,1-dimethylethyl)phenyl]-3-(4-methoxyphenyl)propane-1,3-dione |
| <b>CAS No:</b>            | 70356-09-1  |
| <b>EC No:</b>             | 274-581-6   |
| <b>Molecular formula:</b> | C <sub>20</sub> H <sub>22</sub> O <sub>3</sub>  |
| <b>Molecular weight:</b>  | 310.40  |
| <b>Structure formula:</b> |   |



### Chemical Specification

|  |   |
|--|---|
| Appearance                             | White to pale yellow crystalline powder |
| Loss on drying (%)                     | 0.5 max.                                |
| Melting point (°C)                     | 81 – 86                                 |
| Specific extinction (E1%, 1cm @ 357nm) | 1100.0 – 1180.0                         |
| Assay (% , GC)                         | 95.0 – 105.0                            |
| Total Impurities (%)                   | 4.5 max.                                |
| Individual impurity (%)                | 3.0 max.                                |
| Total aerobic micro count (cfu/g)      | 100 max.                                |
| Total yeast & mold count (cfu/g)       | 100 max.                                |
| Escherichia coli. (1g)                 | negative                                |
| Salmonella (in 1g)                     | negative                                |
| Candida albicans (in 1g)               | negative                                |
| Staphylococcus (in 1g)                 | Negative                                |
| Pseudomonas aeruginosa (in 1g)         | Negative                                |
| Nickel (ppm)                           | 1 max.                                  |
| Mercury (ppm)                          | 1 max.                                  |
| Antimony (ppm)                         | 1 max.                                  |
| Lead (ppm)                             | 5 max.                                  |

TDS Hunan Chemical BV

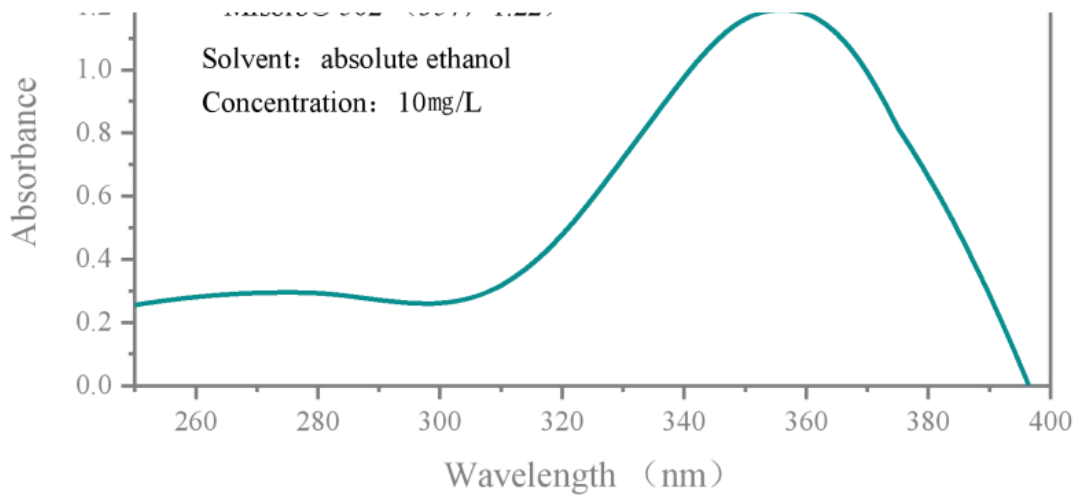
|                    |                                   |
|--------------------|-----------------------------------|
| Arsenic (ppm)      | 2 max.                            |
| Cadmium (ppm)      | 1 max.                            |
| Cobalt (ppm)       | 1 max.                            |
| Chrome (ppm)       | 1 max.                            |
| Total metals (ppm) | 10 max.                           |
| Residual solvents  | Meets the requirements of ICH/USP |

**Packing:** In 25kgs net drum or cartons, 600kgs net (24ccartons/drums) on pallet

**Shelf life:** 36months

**Storage:** Preserve in well-closed containers. Store at room temperature

#### UV Characteristics



#### Features and application:

BMDBM is combined with recognized safe and effective UV-B filter, provides broad-spectrum protection on skin and sun-care preparations. It can be used for the formulation of protective hair-care, medicated skin-care and protective skin-tone preparations. It can also be used to quench phototoxic skin reactions initiated by weak phototoxic materials