1. **General**

Chivacure® 169 is a powerful Norrish-type I photoinitiator used to initiate the polymerization of UV-curable resins. It is a highly efficient UV curing agent especially suitable for dark-pigmented systems and photoresists. With its unique structure, Chivacure® 169 provides great photo-speed, excellent formulation and pigment compatibility, and is odor-free.

2. **Properties**

- **Chemical name**: 2-Benzyl-2-(dimethylamino)-1-(4-morpholinophenyl)butan-1-one
- **Structure**:

![Chemical Structure](image)

- **CAS No.**: 119313-12-1
- **ELINCS No.**: 404-360-3
- **Molecular formula**: C_{23}H_{20}N_{2}O_{2}
- **Molecular weight**: 366.5

3. **Physical Data**

- **Appearance**: Pale yellow powder
- **Odor**: Faint
- **Melting point**: 110 - 115 °C
- **Boiling point**: >280 °C

4. **Solubility**

(g in 100 ml solvent @20 °C)

- **Acetone**: 17
- **Toluene**: >25
- **Ethyl acetate**: >10
- **HDDA**: 5
- **Water**: <0.1

5. **Specification**

- **Appearance**: Pale yellow powder
- **Assay**: 98% min.
- **Melting point**: 108 °C min
- **Volatile**: 0.5% max.
6. **UV Spectrum**

![UV spectrum of Chivacure® 169 in methanol](image)

7. **Application**

Chivacure® 169 is highly recommended for dark-pigmented systems and photoresists. It can be used alone or in combination with Chivacure 184 or Chivacure BDK. The optimized dosage of Chivacure® 169 should be determined after multiple trials over a concentration range.

Recommended concentration:
- Offset inks 2~4%
- Screen inks 2~4% (used in combination with 1~3% Chivacure 184)
- Pigmented coatings 2~4%

8. **Packaging**

20 kg net/carton box