

## Safety Data Sheet: Benzophenone-4

### 1. Identification

|                          |                                                                                                                                                                                                                                                                                 |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product</b>           | Benzophenone-4; CAS 4065-45-6; EC 223-772-2                                                                                                                                                                                                                                     |
| <b>Use</b>               | Professional personal-care ingredient and formulation development.                                                                                                                                                                                                              |
| <b>Company</b>           | Hainan Zhongxin Chemical Co., Ltd. (ZXCHEM)                                                                                                                                                                                                                                     |
| <b>Address</b>           | Room 1001, Building A, Caohejing Center, No. 1520 Gumei Road, Xuhui District, Shanghai, China                                                                                                                                                                                   |
| <b>Telephone / email</b> | +86-21-54265599 / sales@zxchem.com.cn                                                                                                                                                                                                                                           |
| <b>Emergency contact</b> | ZXCHEM office number above, office hours, China time (UTC+8). For urgent medical assistance contact local emergency services.                                                                                                                                                   |
| <b>Scope</b>             | Reference safety information for Benzophenone-4. The reference composition, concentration and supply-grade differences are described in Section 3. This document does not certify the composition or transport status of a specific delivered batch or a different formulation. |

### 2. Hazards Identification

|                              |                                                                                                                                                                                                                                    |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Classification</b>        | Skin irritation Category 2; serious eye damage Category 1; skin sensitization Category 1; reproductive toxicity Category 2; single-exposure organ toxicity Category 3 (respiratory irritation); chronic aquatic hazard Category 3. |
| <b>Signal word / symbols</b> | Danger; GHS05, GHS07, GHS08                                                                                                                                                                                                        |
| <b>Hazard statements</b>     | H315/H318/H317/H361/H335/H412: skin irritation, eye injury, allergic skin response, suspected reproductive harm, respiratory irritation and chronic aquatic harm.                                                                  |
| <b>Prevention</b>            | Use adequate ventilation; avoid inhaling dust. Prevent skin and eye contact. Wear suitable chemical-resistant gloves and eye protection. Wash after handling; keep food and drink out of the work area.                            |
| <b>Response</b>              | After exposure, stop work and seek medical advice. For severe exposure obtain urgent medical care. Rinse contaminated skin or eyes with water; move an inhalation casualty to fresh air.                                           |
| <b>Environment</b>           | Prevent uncontrolled release to drains, soil or surface water. Collect spills for appropriate disposal.                                                                                                                            |



### 3. Composition / Information on Ingredients

|                             |                                                                                                                                                                                                                 |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reference ingredient</b> | Sulisobenzene, CAS 4065-45-6, EC 223-772-2. Supply HPLC purity ≥99%; solvent impurities are not invented.                                                                                                       |
| <b>Supply grade</b>         | Purity ≥99% (HPLC)                                                                                                                                                                                              |
| <b>Applicability</b>        | The cited concentration or purity describes the reference material. It is not a certificate of analysis for the delivered batch; different solvents or dilutions require the matching supplier safety document. |

#### 4. First-Aid Measures

|                            |                                                                                                                                          |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhalation</b>          | Move to fresh air; seek medical advice for respiratory symptoms.                                                                         |
| <b>Skin</b>                | Remove contaminated clothing and wash thoroughly with soap and water. Obtain care for irritation or allergic response.                   |
| <b>Eyes</b>                | Flush gently with clean water for at least 15 minutes, remove lenses when easy and continue rinsing. Obtain immediate medical treatment. |
| <b>Ingestion</b>           | Rinse the mouth. Do not induce vomiting; obtain medical advice. Give nothing orally to an unconscious person.                            |
| <b>Effects / treatment</b> | Eye injury and sensitization require prompt clinical assessment. Significant exposure warrants clinician-directed evaluation.            |

#### 5. Fire-Fighting Measures

|                            |                                                                                                                                                    |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Extinguishing media</b> | Use water spray, foam, dry chemical or carbon dioxide suited to the surrounding fire.                                                              |
| <b>Hazards</b>             | Organic decomposition can release carbon- and sulfur-containing fumes.                                                                             |
| <b>Protection</b>          | Firefighters require suitable protective clothing and self-contained breathing equipment. Prevent contaminated firefighting water entering drains. |

#### 6. Accidental Release Measures

|                    |                                                                                                                                    |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personnel</b>   | Isolate the spill and provide ventilation. Use chemical-resistant gloves and eye protection; avoid contact and dust exposure.      |
| <b>Environment</b> | Contain the release and protect drains and waterways. Report significant environmental contamination to the responsible authority. |
| <b>Cleanup</b>     | Collect spilled solid without raising dust into closed labelled containers.                                                        |

#### 7. Handling and Storage

|                          |                                                                                                                                                                                                                                                  |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Handling</b>          | Control dust with local extraction. Wear suitable chemical gloves, protective clothing, tightly sealing goggles and face protection; avoid skin contact. Maintain emergency eyewash access and obtain immediate medical care after eye exposure. |
| <b>Storage</b>           | Keep tightly sealed in a cool, dry place protected from moisture and light. Restrict access and avoid contamination.                                                                                                                             |
| <b>Incompatibilities</b> | The selected reference identifies no specific incompatible substance; avoid uncontrolled reactive contamination.                                                                                                                                 |

#### 8. Exposure Controls / Personal Protection

|                               |                                                                                                                                                     |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Exposure limits</b>        | No product-specific occupational exposure limit is established here. Control airborne dust and apply current local workplace exposure requirements. |
| <b>Engineering controls</b>   | Use local extraction where dust can be generated. Maintain accessible eyewash and emergency washing facilities.                                     |
| <b>Personal protection</b>    | Wear chemical-resistant gloves selected for the task, suitable protective clothing and splash goggles. Add face protection for splash-prone tasks.  |
| <b>Respiratory protection</b> | Use a properly selected respirator under a respiratory-protection program where engineering controls do not adequately limit airborne exposure.     |
| <b>Hygiene</b>                | Wash after handling, remove contaminated clothing promptly and do not eat, drink or smoke in the work area.                                         |

## 9. Physical and Chemical Properties

|                          |                                                                        |
|--------------------------|------------------------------------------------------------------------|
| Appearance, supply       | Off-white to light-yellow crystalline powder                           |
| pH, supply               | 1.2–2.2                                                                |
| Melting point, reference | 145°C                                                                  |
| Additional properties    | Other unstated supplied-grade physicochemical values are not inferred. |

## 10. Stability and Reactivity

|                   |                                                                                                                  |
|-------------------|------------------------------------------------------------------------------------------------------------------|
| Stability         | Handle and store under the recommended conditions. Prevent contamination and unnecessary heating.                |
| Incompatibilities | The selected reference identifies no specific incompatible substance; avoid uncontrolled reactive contamination. |
| Decomposition     | Organic decomposition can release carbon- and sulfur-containing fumes.                                           |

## 11. Toxicological Information

|                          |                                                                                                                                                                                                                                    |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Exposure effects         | Avoid uncontrolled dust, mist, skin and eye exposure. Obtain medical advice for persistent symptoms.                                                                                                                               |
| Reference classification | Skin irritation Category 2; serious eye damage Category 1; skin sensitization Category 1; reproductive toxicity Category 2; single-exposure organ toxicity Category 3 (respiratory irritation); chronic aquatic hazard Category 3. |
| Toxicological data       | Reference rat oral LD50: 3530 mg/kg. Eye damage, skin irritation and sensitization, respiratory irritation and suspected reproductive toxicity are identified. Avoid dust and direct exposure.                                     |

## 12. Ecological Information

|                       |                                                                                                                                                                        |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environmental effects | Prevent discharge to soil, drains and receiving water. Retain cleanup waste; the reference does not establish complete environmental fate data for the supplied grade. |
| Controls              | Prevent uncontrolled release, collect spills and dispose of contaminated material through an authorized route.                                                         |
| Assessment            | No product-specific PBT/vPvB assessment is claimed. Absence of data does not establish absence of environmental effects.                                               |

## 13. Disposal Considerations

|           |                                                                                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product   | Collect surplus product and contaminated cleanup material for disposal by an authorized chemical-waste contractor in accordance with local requirements. |
| Packaging | Containers may retain product residues. Do not reuse contaminated packaging without an approved cleaning process; use an authorized disposal route.      |

## 14. Transport Information

|                       |                                                                                                                                                         |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Classification        | Non-dangerous goods                                                                                                                                     |
| UN number             | Not assigned                                                                                                                                            |
| Shipping name         | Not regulated as dangerous goods                                                                                                                        |
| Class / packing group | DOT, ADN, IMDG and IATA: non-dangerous goods in the full solid reference.                                                                               |
| Transport precautions | Protect packaging and closures from damage, secure loads and prevent releases. This reference is not a shipping declaration for a specific consignment. |

**15. Regulatory Information**

|                     |                                                                                                                                          |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Identity</b>     | Benzophenone-4; CAS 4065-45-6; EC 223-772-2                                                                                              |
| <b>HS reference</b> | 291479; reference heading rather than a destination customs ruling.                                                                      |
| <b>Compliance</b>   | Apply applicable workplace, environmental and transport rules. A raw-material listing does not establish finished-product authorization. |
| <b>Assessment</b>   | No ZXCHEM-specific chemical safety assessment or destination registration is asserted.                                                   |

**16. Other Information**

|                        |                                                                                                                                                                                                                                  |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Hazard meanings</b> | H315/H318/H317/H361/H335/H412: skin irritation, eye injury, allergic skin response, suspected reproductive harm, respiratory irritation and chronic aquatic harm.                                                                |
| <b>Limitations</b>     | Prepared as reference safety information for the identified material. It is not a batch analytical certificate or safety assessment of a different solvent-containing formulation.                                               |
| <b>Revision</b>        | 2026.3; prepared 2026-10-06. Customer-document branding and title corrected; technical safety data retained.                                                                                                                     |
| <b>Document scope</b>  | Reference safety information for the material and grade described in Sections 1 and 3. Different concentrations, solvents or formulations require the applicable safety information. This is not a batch analytical certificate. |

Revision: 2026.3 | Revision date: 2026-10-06