

SAFETY DATA SHEET

Issue date : March 01, 2024 Revision date : Jan 02, 2025
 Revision number : 2 Printed date : Jan 02, 2025

1. Identification of the substance and of the supplier

GHS product identifier
 Product name: **BENZALDEHYDE US NATURAL**
 Other means of identification
 CAS Number 100-52-7
 EC Number 202-860-4
 FEMA Number 2127
 Recommended use of the chemical and restrictions on use
 Recommended use Concentrated aromatic and flavor ingredient which may be used in flavor and fragrance compounds according to legal and IFRA or FEMA GRAS/FDA guidelines.
 Restrictions on use For Manufacturing Use Only
 Supplier's details
 Company name Asia Specialty Ingredients Joint Stock Company
 Address Chi Long Village, Ngoc Long Commune, Yen My District, Hung Yen Province, Vietnam
 Telephone +84 2213 580 989
 Website www.asi-vn.com
 Email info@asi-vn.com
 Emergency phone number +84 986 385 445

2. Hazards identification

GHS classification of the substance
 Physical hazards Flammable liquids Category 3
 Health hazards Acute toxicity Category 4
 Eye irritation Category 2A
 Specific target organ toxicity - Single exposure Category 2
 Respiratory system Category 3
 Environmental hazards Hazardous to the aquatic environmental Category 3
 GHS label elements Pictogram





| Hazard statements | Signal word | Warning |
|---|---|---------|
| | H302 Harmful if swallowed | |
| | H319 Causes serious eye irritation | |
| | H335 May cause respiratory irritation | |
| | | |
| Precautionary statements | | |
| Prevention | | |
| | P261 Avoid breathing fumes | |
| | P280 Wear protective gloves/eye protection/face protection | |
| | | |
| Response | | |
| | P330 Rinse mouth | |
| | | |
| Storage | | |
| | P235 Keep cool | |
| | P405 Store locked up | |
| | | |
| Disposal | | |
| | P501 Dispose of contents/container in accordance with local/regional/national/international regulations | |
| | | |
| Other hazards which do not result in classification | After prolonged contact with highly porous materials, this product may spontaneously combust | |

3. Composition/information on ingredients

Chemical identity

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|--|---|
| Chemical name | Benzaldehyde |
| Common name, synonym, etc. | Benzoic aldehyde, Benzenecarboxaldehyde, Benzene carbinal, Phenylmethanal |
| Formula | C ₇ H ₆ O |
| Molecular weight | 106.124 g/mol |
| <u>CAS number and other unique identifiers</u> | |
| CAS Number | 100-52-7 |
| EC Number | 202-860-4 |
| FEMA Number | 2127 |
| Impurities and stabilizing additives which are themselves classified and which contribute to the classification of the substance | No data available |

4. First-aid measures

Description of necessary measures

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|--|---|
| Inhalation | If breathing is difficult, move to fresh air and keep at rest in a comfortable position for breathing. For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist. |
| Skin contact | Take off immediately all contaminated clothing. Get medical attention if irritation develops and persists. Wash skin thoroughly with soap and water for several minutes. |
| Eye contact | Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists. Promptly wash the eyes with plenty of water while lifting the eye lids. |
| Ingestion | Call a physician or poison control center immediately. If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. |
| Most important symptoms/effects | Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. |
| Indication of immediate medical attention and special treatment needed, if necessary | No further relevant information available |

5. Fire-fighting measures

| | |
|--|---|
| Suitable and unsuitable extinguishing media | |
| Suitable extinguishing media | Water spray, fog, CO ₂ , dry chemicals, or alcohol resistant foam. |
| Unsuitable extinguishing media | Do not use a solid water stream as it may scatter and spread fire. |
| Specific hazards arising from the chemical | Fire may produce irritating, corrosive and/or toxic gases. |
| Special protective equipment and precautions for fire-fighters | Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural fire fighters protective clothing will only provide limited protection. Wear self-contained breathing apparatus with a full face piece operated in the positive pressure demand mode when fighting fires. |

6. Accidental release measures

| | |
|---|---|
| Personal precautions, protective equipment and emergency procedures | Wear protective equipment. Keep unprotected person away |
| Environmental precautions | Do not allow to enter sewers/surface or ground water. |
| Methods and materials for containment and cleaning up | Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13. Ensure adequate ventilation |

7. Handling and storage

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| Precautions for safe handling | Do not handle or store near an open flame, heat or other sources of ignition. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wash thoroughly after handling |
| Conditions for safe storage, including any compatibilities | Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. |

8. Exposure controls/personal protection

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| Control parameters | |
| Occupational exposure limits | This substance has no PEL, TLV, or other recommended exposure limits. |
| Biological limit values | No biological exposure limits noted for the ingredient(s). |
| Appropriate engineering controls | Use explosion-proof ventilation equipment to stay below exposure limits. |
| Individual protection measures | |
| Eye/face protection | Avoid contact with eyes. |
| Hand skin protection | Chemical resistant gloves. |
| Other skin protection | Use of an impervious apron is recommended. |
| Respiratory protection | Chemical respirator with organic vapour cartridge and full facepiece. |
| Thermal hazards | Wear appropriate thermal protective clothing, when necessary. |
| General hygiene considerations | When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, |

and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

| | |
|--|------------------------|
| Physical state | Liquid |
| Colour | Mobile, colourless |
| Odour | Characteristics |
| Melting point/freezing point | -26°C |
| Boiling point | 178°C |
| Flammability | Combustible liquids |
| Lower and upper explosion limit/flamability limit | No data available |
| Flash point | 62.8°C, Closed cup |
| Auto-ignition temperature | 191.67°C |
| Decomposition temperature | No data available |
| pH | No data available |
| Kinematic viscosity | No data available |
| Solubility | Insoluble in water |
| Partition coefficient: n-octanol/water (log value) | 1.48 |
| Vapour pressure | 1 mm Hg at 25 °C |
| Density and/or relative density | 1.041 - 1.051 at 20 °C |
| Relative vapour density | 3.66 |
| Particle characteristics | No data available |

10. Stability and reactivity

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|------------------------------------|--|
| Reactivity | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| Chemical stability | Material is stable under normal conditions. |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials. |
| Incompatible materials | Strong oxidizing agents. |
| Hazardous decomposition products. | No hazardous decomposition products if stored and handled as indicated. |

11. Toxicological information

| | |
|--|---|
| Information of the likely routes of exposure | |
| Inhalation | May be harmful if inhaled |
| Skin Contact | Causes skin irritation |
| Eye Contact | May be harmful if absorbed through the skin. Readily absorbed by skin. |
| Ingestion | Causes eye irritation |

| | |
|---|---|
| Symptoms related to the physical, chemical and toxicological characteristics | Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. |
| Delayed and immediate effects and also chronic effects from short- and long-term exposure | No data available |
| Numerical measures of toxicity | No data available |

12. Ecological information

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|-------------------------------|---|
| Ecotoxicity | Toxic to aquatic life with long lasting effects |
| Persistence and degradability | Readily biodegradability >90 % BSB/CSB. |
| Bioaccumulative potential | No data available. |
| Mobility in soil | No data available. |
| Other adverse effects | No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component. |

13. Disposal considerations

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|--------------------------------------|---|
| Disposal instructions | Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemicals or used containers. Dispose of contents/container in accordance with local/regional/national/international regulations. |
| Local disposal regulations | Dispose in accordance with all applicable regulations. |
| Hazardous waste code | Not established. |
| Waste from residues/ unused products | Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). |
| Contaminated packaging | Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is empty |

14. Transport information

| | |
|------------------------------|--------------|
| DOT (US) | |
| UN number | 1990 |
| UN proper shipping name | BENZALDEHYDE |
| Transport hazard class | 9 |
| Packing group, if applicable | III |
| IMDG | |

| | |
|------------------------------|--------------|
| UN number | 1990 |
| UN proper shipping name | BENZALDEHYDE |
| Transport hazard class | 9 |
| Packing group, if applicable | III |
| IATA | |
| UN number | 1990 |
| UN proper shipping name | BENZALDEHYDE |
| Transport hazard class | 9 |
| Packing group, if applicable | III |
| ADR | |
| UN number | 1990 |
| UN proper shipping name | BENZALDEHYDE |
| Transport hazard class | 9 |
| Packing group, if applicable | III |

15. Regulatory information

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|---|--|
| Safety, health and environmental regulations/legislation specific for the substance | This safety datasheet complies with the requirement of Regulation (EC) No. 1997/2006 |
| Other regulations | This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. |
| Chemical safety assessment | For this product a chemical safety assessment was not carried out |

16. Other information

This Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. Asia Specialty Ingredients Joint Stock Company makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damage relating thereto. The data is offered solely for your consideration, investigation, and verification. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of Asia Specialty Ingredients JSC and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).