

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: BENZALDEHYDE

CAS Number: 100-52-7

1. IDENTIFICATION:

Product Code : 91520, 91803, 93721, 99044, 98274

Company Name : ADVENT CHEMBIO PRIVATE LIMITED

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2. HAZARDS IDENTIFICATION:

Hazard classification

Health hazards

Acute toxicity : Category 4 (Harmful if swallowed)

Acute toxicity : Category 4 (Harmful if inhaled)

Skin irritation : Category 2

Eye irritation : Category 2

Reproductive toxicity : Category 1B

Specific target organ
toxicity - single exposure, : Category 3Respiratory system
Long-term (chronic) aquatic : Category 2
hazard

Labels elements :

Hazard symbol :



Signal word : Danger

Hazard statement

Harmful if swallowed or if inhaled.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
May damage the unborn child.
Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention : Obtain special instructions before use.
Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Do not handle until all safety precautions have been read and understood.

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- Wear protective gloves/ protective clothing/ eye protection/ face protection.
Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
Keep container tightly closed. Ground/ bond container and receiving equipment.
Use explosion-proof electrical/ ventilating/ lighting/ equipment.
Use only non-sparking tools. Take precautionary measures against static discharge.
- Response** : IF exposed or concerned: Get medical advice/ attention.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF SWALLOWED: Immediately call a poison center or doctor/physician.
- Storage** : Store in a dry & well-ventilated place. Keep container tightly closed. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- Disposal** : Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
- Other hazards which do not result in GHS classification** : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

3. COMPOSITION/ INFORMATION ON INGREDIENTS:

Ingredient	CAS Number	Percent	Hazardous
Benzaldehyde	100-52-7	NLT 99.0%	Yes

4. FIRST AID MEASURES:

- General information** : Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.
- Ingestion** : Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting.
: If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Move to fresh air. Call a physician or poison control center immediately. If breathing stops,
- Inhalation** : provide artificial respiration. If breathing is difficult, give oxygen.
Get medical attention if symptoms persist.
- Skin contact** : Immediately flush with plenty of water for at least 15 minutes. Get medical attention.
- Eye contact** : Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.
- Most important** : The most important known symptoms and effects are described in the labelling.

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symptoms/effects, acute
and delayed

Indication of immediate
medical attention and
special treatment needed : No data available.

5. FIRE FIGHTING MEASURES:**General information****Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing
media** : Water spray, foam, dry powder or carbon dioxide.

**Unsuitable extinguishing
media** : For this substance/mixture no limitations of extinguishing agents are given.

**Specific hazards arising
from the chemical** : Carbon oxides, Combustible.
Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.

Special protective equipment and precautions for firefighters

**Special firefighting
procedures** : Fight fire from a protected location. Move containers from fire area if you can do so without risk.

**Special protective
equipment 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.

6. ACCIDENTAL RELEASE MEASURES:

**Personal precautions,
protective equipment and
emergency procedures** : ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
Avoid breathing mists or vapors. Keep upwind. Keep unauthorized personnel away.

**Methods and material for
containment and cleaning
up** : Eliminate all ignition sources if safe to do so. Use only non-sparking tools. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal.

Notification Procedures : Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved.

Environmental precautions : Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. HANDLING AND STORAGE:

**Precautions for safe
handling** : Do not handle until all safety precautions have been read and understood. Do Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.
Wear protective gloves/protective clothing/eye protection/ face protection. Avoid contact with eyes, skin, and clothing. Do not breathe the mist or vapor. Use only with adequate ventilation. Wash hands thoroughly after handling.

**Conditions for safe storage,
including any
incompatibilities** : Keep away from food, drink and animal feeding stuffs. Keep container tightly closed in a dry, well-ventilated place. Ground container and transfer equipment to eliminate static electric sparks.

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8. EXPOSURE CONTROLS PERSONAL PROTECTION:**Appropriate engineering****controls** : No data available**Individual protection measures, such as personal protective equipment****General information** : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.**Eye/face protection** : Wear safety glasses with side shields (or goggles).**Hand protection** : Chemical resistant gloves.**Other** : Wear suitable protective clothing.**Respiratory protection** : Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds.**Hygiene measures** : 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. Provide eyewash station and safety shower. Avoid contact with eyes, skin, and clothing.**9. PHYSICAL AND CHEMICAL PROPERTIES:****Appearance** : Colourless to pale yellow liquid**Odor** : No data available**Solubility** : Miscible with ethanol and ether. 0.3 g miscible in 100 ml water.**Formula** : C₇H₆O**Molecular Weight** : 106.12 g/mol**Density** : 1.044 - 1.046 g/cm³ at 20°C**pH** : 5.9 at 20°C**% Volatiles by volume @ 21C (70F)** : No data available**Boiling Point** : 177.0 - 180.0°C**Melting Point** : -26°C**Flash Point** : 63 °C**Vapor Density (Air=1)** : 3.66**Vapor Pressure (mm Hg)** : 1.69 @ 25°C**Evaporation Rate (BuAc=1)** : No data available

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10. STABILITY AND REACTIVITY:

Reactivity	:	Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical.
Chemical stability	:	Material is stable under ambient conditions..
Possibility of hazardous reactions	:	Violent reactions possible with: bases, Alkali metals, Aluminum, Iron, performic acid, phenols, Oxygen, Oxidizing agents
Conditions to avoid	:	Air Exposure to moisture. Light. Heat. Strong heating.
Incompatible materials	:	No data available
Hazardous decomposition products	:	In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION:

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product	:	1.430 mg/kg
Dermal Product	:	LD 50 (Rabbit): male and female - > 2.000 mg/kg
Inhalation Product	:	LC 50 (Rat): male and female - 4 h - 1 - 5 mg/l - dust/mist
Repeated dose toxicity Product	:	No data available.
Skin corrosion/irritation Product	:	Causes skin irritation.
Serious eye damage/eye irritation Product	:	Causes serious eye irritation.
Respiratory or skin sensitization Product	:	Maximization Test - Guinea pig Result: negative
Carcinogenicity Product	:	No data available.
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans	:	No data available.
US. National Toxicology Program (NTP) Report on Carcinogens	:	No data available.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	:	No data available.
Germ cell mutagenicity	:	Test Type: Micronucleus test Test system: Human lymphocytes Metabolic activation: with and without metabolic activation Result: negative Test Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells

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Metabolic activation: with and without metabolic activation
Result: negative

Reproductive toxicity Product : May damage the unborn child.
Specific target organ toxicity - single exposure Product : Inhalation - May cause respiratory irritation. - Lungs
Specific target organ toxicity - repeated exposure Product : No data available
Aspiration hazard Product : No data available
Other effects : None known.

12. ECOLOGICAL INFORMATION:**Ecotoxicity****Acute hazards to the aquatic environment**

Fish Product : flow-through test LC50 - Lepomis macrochirus - 1,07 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates : semi-static test EC50 - Daphnia magna (Water flea) - 19,7 mg/l - 48 h
Toxicity to algae : static test ErC50 - Pseudokirchneriella subcapitata - 33,1 mg/l - 72 h
Toxicity to bacteria : static test IC50 - activated sludge - 759,3 mg/l - 3 h

Chronic hazards to the aquatic environment

Fish Product : flow-through test NOEC - Pimephales promelas (fathead minnow) - 0,12 mg/l - 7 d
Aquatic invertebrates Product : No data available.
Toxicity to Aquatic Plants Product: : No data available.
Persistence and degradability

Biodegradation Product : Readily biodegradable.
BOD/COD ratio Product : No data available.

Bioaccumulative potential

Bioconcentration factor (BCF) Product : No data available on bioaccumulation.
Partition coefficient n-octanol / water (log Kow) Product : No data available.
Mobility in soil : No data available.

Other adverse effects : Forms toxic mixtures in water, dilution measures notwithstanding.
: Discharge into the environment must be avoided.

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13. DISPOSAL CONSIDERATION:

- Disposal instructions** : Discharge, treatment, or disposal may be subject to national, state, or local laws. Disposal recommendations are based on uncontaminated material.
- Contaminated packaging** : Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION:

	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
ADR/RID	UN 1990	Benzaldehyde	9	III	No
IMDG	UN 1990	Benzaldehyde	9	III	No
IATA	UN 1990	Benzaldehyde	9	III	No

15. REGULATORY INFORMATION:

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance or mixture
No Data Available.

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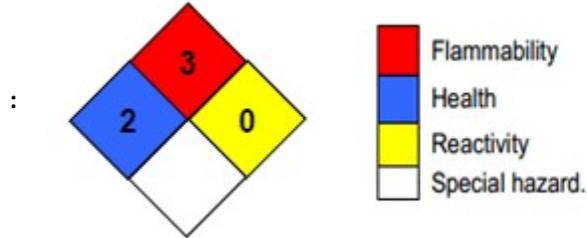
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16. OTHER INFORMATION:

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

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