

## MATERIAL SAFETY DATA SHEET

### Section 1. PRODUCT AND COMPANY IDENTIFICATION

Product name :	BENZALDEHYDE
Product code :	00027154

#### Supplier's details

Supplier: Elchemy  
Company Address: A-448, Pocket 2, Sector 8, Rohini, New Delhi, Pin Code: 110085, India  
Company Web Site: [www.elchemy.com](http://www.elchemy.com)  
Emergency Phone Number: +919867099519 (24 Hrs)  
Email Id: [info@elchemy.com](mailto:info@elchemy.com)

Recommended use of the chemical and restrictions on use

Recommended use: Chemical for synthesis.

### Section 2. HAZARDS IDENTIFICATION

#### GHS Classification

Flammable liquids :	Category 4
Acute toxicity (Oral) :	Category 4
Acute toxicity (Inhalation)	Category 4

Serious eye damage/eye irritation: Category 2A

Specific target organ toxicity - single exposure: Category 3 (Respiratory system)

Short-term (acute) aquatic hazard: Category 2



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## GHS label elements

Hazard pictograms:

Signal word: Warning



Hazard statements:

- H227 Combustible liquid.
- H302 + H332 Harmful if swallowed or if inhaled.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H401 Toxic to aquatic life.

## Precautionary statements

Prevention:

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
- P264 Wash skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

- P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
- P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P313 If eye irritation persists: Get medical advice/ attention.



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- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

#### Storage:

- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
- P405 Store locked up.

#### Disposal:

- P501 Dispose of contents/ container to an approved waste disposal plant.

### Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture: Substance

#### Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
benzaldehyde	100-52-7	>= 90 - <= 100

### Section 4. FIRST AID MEASURES

General advice If inhaled :	Move out of dangerous area. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended. Move the victim to fresh air. Keep patient warm and at rest.
If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.	
It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.	
Get medical attention if adverse health effects persist or are severe.	



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If unconscious, place in recovery position and get medical attention immediately.
Maintain open airway.

Loosen tight clothing such as a collar, tie, belt or waistband.
In case of skin contact:
In case of eye contact :
If swallowed :
Most important : symptoms
and effects, both acute and delayed
Notes to physician :

## Section 5. FIREFIGHTING MEASURES

Suitable extinguishing media: In case of fire, use water spray (fog), foam, dry chemical or CO2.

Unsuitable extinguishing : media	High volume water jet
Specific hazards during fire- : fighting	Do not allow run-off from fire fighting to enter drains or watercourses.
Hazardous combustion prod- : ucts	Carbon dioxide (CO2) Carbon monoxide
Specific extinguishing meth- : ods	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire if this can be done without risk. Use a water spray to cool fully closed containers. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire



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	residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective : equipment for firefighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Use personal protective equipment.
Environmental precautions :	Prevent product from entering drains. Prevent further leakage or spillage if safe to do SO. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for : containment and cleaning up	Stop leak if safe to do SO. Move containers from spill area. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Non-sparking tools should be used. Disposed off through appropriate waste disposal carriers/authorities. Do not allow into the sewerage system, surface waters or groundwater or into the soil.

## Section 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	Do not spray on a naked flame or any incandescent material. Keep away from open flames, hot surfaces and sources of ignition.
Advice on safe handling	For personal protection see section 8. Avoid formation of aerosol. Do not breathe vapours/dust. Avoid contact with skin and eyes. Avoid exposure -



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	obtain special instructions before use. Provide sufficient air exchange and/or exhaust in work rooms. In case of insufficient ventilation, wear suitable respiratory equipment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep container tightly closed. Keep away from heat and flame. Electrical equipment should be protected to the appropriate standard. Take precautionary measures against static discharges. Empty containers retain product residue; observe all precautions for product.
Conditions for safe storage	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store away from incompatible materials (see section 10) and food and drink. Observe label precautions. Keep away from heat and sources of ignition. Keep away from oxidizing agents. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate container to avoid environmental contamination.
Materials to avoid	Keep away from oxidizing agents.

Further information on storage stability: No decomposition if stored and applied as directed.

## Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

### Personal protective equipment

Respiratory protection :	Vapour respirator
Filter type :	ABEK-filter
Hand protection Material : Wearing time :	Butyl rubber - IIR < 60 min
Remarks :	

	The suitability for a specific workplace should be discussed with the producers of the protective gloves. After contamination with product change the gloves immediately and dispose of them according to relevant national and local regulations
Eye protection :	Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems. Eye wash bottle with pure water
Skin and body protection :	Protective suit
Hygiene measures :	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday. Remove contaminated clothing and protective equipment before entering eating areas.

## Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance :	liquid
Colour :	colourless to yellow
Odour :	Almond-like.
Odour Threshold :	No data available
pH :	2.9

## Section 10. STABILITY AND REACTIVITY

Reactivity :	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability :	This product is stable.
Possibility of hazardous reactions :	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid :	Exposure to air. Exposure to light. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such



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	containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury and/or death.
Incompatible materials :	Oxidizing agents, Alkalis, Aluminium, Iron, Oxygen
Hazardous decomposition products :	No decomposition if stored and applied as directed.

## Section 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

Harmful if swallowed or if inhaled.

#### Product:

Acute oral toxicity :	Acute toxicity estimate: 1,430 mg/kg Method: Calculation method
Acute inhalation toxicity :	Acute toxicity estimate: 1.5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method
Acute inhalation toxicity :	LC50 (Rat, male and female): > 1 - 5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 436 GLP: yes

## Physical and Chemical Properties

Melting point/range :	-26 °C
Boiling point/boiling range :	179 °C (1,013 hPa)
Flash point :	62 °C Method: closed cup
Evaporation rate :	No data available
Flammability (solid, gas) :	No data available
Upper explosion limit / Upper flammability limit :	No data available
Lower explosion limit :	No data available
Vapour pressure :	1.69 hPa (25 °C)
Relative vapour density :	3.66 (Air = 1.0)



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Relative density :	No data available
Density :	1.05 g/cm <sup>3</sup> (20 °C)
Solubility(ies) Water solubility :	6.95 g/l
Partition coefficient: n-octanol/water :	No data available
Ignition temperature :	192 °C
Decomposition temperature :	No data available
Viscosity Viscosity, dynamic :	1.32 mPa.s
Explosive properties :	No data available
Oxidizing properties :	No data available
Molecular weight :	106.12 g/mol

## Acute Dermal Toxicity

**Assessment:** The substance or mixture has no acute dermal toxicity

**Remarks:** Dosage caused no mortality

Test results on an analogous product

## Skin Corrosion/Irritation

Not classified based on available information.

**Product:**

**Remarks:** May cause skin irritation in susceptible persons.

**Components:**

**benzaldehyde:**

- Species: Rabbit
- Exposure time: 4 h
- Method: Regulation (EC) No. 440/2008, Annex, B.4
- Result: No skin irritation
- GLP: yes
- Remarks: Test results on an analogous product



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## Serious Eye Damage/Eye Irritation

Causes serious eye irritation.

### Product:

Method: in vitro eye irritation test

**Remarks:** Irritant

### Components:

#### benzaldehyde:

- Species: Rabbit
- Method: OECD Test Guideline 405
- Result: Irritating to eyes.
- GLP: No information available.

## Respiratory or Skin Sensitisation

**Skin sensitisation:** Not classified based on available information.

**Respiratory sensitisation:** Not classified based on available information.

### Components:

#### benzaldehyde:

- Species: Guinea pig
- Method: OECD Test Guideline 406
- Result: Does not cause skin sensitisation.
- GLP: No information available.
- Species: Guinea pig
- Result: Does not cause respiratory sensitisation.
- GLP: No information available.

## Germ Cell Mutagenicity

Not classified based on available information.



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## Components:

### benzaldehyde:

Genotoxicity in vitro	Test system: Bacteria
	Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative GLP: No information available. Test system: Chinese hamster cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473
	Result: negative

## Carcinogenicity

Not classified based on available information.

## Components:

### benzaldehyde:

## Species

Mouse, (male and female)

## Application Route

Oral

## Exposure time

103 weeks

## Frequency of Treatment

5 days/week



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## Method

OECD Test Guideline 451

## Result

negative

## GLP

yes

## Reproductive toxicity

Not classified based on available information.

## STOT - single exposure

May cause respiratory irritation.

## Components

### benzaldehyde:

Assessment: May cause respiratory irritation.

## STOT - repeated exposure

Not classified based on available information.

## Repeated dose toxicity

## Components

### benzaldehyde

Species: Rat

LOAEL: 500 ppm



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Application Route: Inhalation

Test atmosphere: vapour

Exposure time: 14 Days

Number of exposures: 7 days/week

Method: OECD Test Guideline 412

GLP: No information available.

Remarks: Subacute toxicity

Species: Rat, male and female

@ootongicity Application

Not classified based on available information.

## Further information

### Product

Remarks: No data available

## Section 12. ECOLOGICAL INFORMATION

### Ecotoxicity

### Components

#### benzaldehyde:

Toxicity to fish :	LC50 (Lepomis macrochirus (Bluegill sunfish)): 1.07 mg/l Exposure time: 96 h
Method: OECD Test Guideline 203	
Toxicity to daphnia and other aquatic invertebrates	



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	EC50 (Daphnia magna (Water flea)): 50 mg/l Exposure time: 24 h Test Type: static test GLP: No information available.
Toxicity to microorganisms	IC50 (activated sludge): 759 mg/l Exposure time: 3 h Method: OECD Test Guideline 209

## Persistence and degradability

### Components

#### benzaldehyde:

### Biodegradability

aerobic

Inoculum: activated sludge

Concentration: 50 mg/l Dissolved organic carbon (DOC)

Result: rapidly biodegradable

Biodegradation: 100 %

Exposure time: 19 d

GLP: no

## Bioaccumulative potential

### Components

#### benzaldehyde:

Partition coefficient: n- : log Pow: 1.4 (25 °C)

Mobility in soil

octanol/water Method: measured



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No data available

Other adverse effects Product:

Additional ecological information: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**Toxic to aquatic life.**

## Section 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues :	Examine possibilities for re-utilisation.
Product residues and uncleaned empty containers should be packaged, sealed, labelled, and disposed of or recycled according to relevant national and local regulations.	
Where large quantities are concerned, consult the supplier. When uncleaned empty containers are passed on, the recipient must be warned of any possible hazard that may be caused by residues.	
For disposal within the EC, the appropriate code according to the European Waste List (EWL) should be used.	
It is among the tasks of the polluter to assign the waste to waste codes specific to industrial sectors and processes according to the European Waste List (EWL).	

### Contaminated packaging

The generation of waste should be avoided or minimised wherever possible.

- Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.
- Do not burn, or use a cutting torch on, the empty drum.

## Section 14. TRANSPORT INFORMATION

### National Regulations

IN\_DG



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Registered Name: **BizinBiz Technologies Private Limited**

Registered Address: 3/8 2nd Floor, Asaf Ali Road, Above Dabur India Pvt. Ltd., New Delhi, India, 110002

CIN: U24290DL2021PTC382855 | **GST: 07AAJCB9425C1ZR**

IEC: AAJCB9425C

UN number :	UN 1990
Proper shipping name :	BENZALDEHYDE
Class :	9
Packing group :	III
Labels :	9

Hazchem Code	: 3Z
Environmentally hazardous	no



## International Regulations

IATA-DGR

UN/ID No. :	UN 1990
Proper shipping name :	Benzaldehyde
Class :	9

## Packing Group

III

Labels: 9

Packing instruction (cargo: aircraft)	964: 220.00 L
Packing instruction (passenger: aircraft)	964: 100.00 L
Environmentally hazardous	no
IMDG-Code	
UN number:	UN 1990
Proper shipping name:	BENZALDEHYDE



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Class:	9
Packing group:	III
Labels:	9



Marine pollutant: no



Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

**Hazard statements:** Combustible. Irritating to the eyes. Has an intense odour. Keep separated from foodstuffs.

## Section 14. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

International Chemical Weapons Convention (CWC): Not applicable

Schedules of Toxic Chemicals and Precursors

## Section 15. OTHER INFORMATION

Full text of other abbreviations

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and



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