TNJ®

Specialized in chemicals

Hefei TNJ Chemical Industry Co.,Ltd.
D1508 Xincheng Business Center,
Qianshan Rd. Hefei 230022 China
Tel : (0086) 551 65418678
Fax: (0086) 551 65418697
Email: info@tnjchem.com
Site: www.tnjchem.com

Material Safety Data Sheet

Benzaldehyde MSDS

Section 1: Chemical Product and Company Identification

Product Name: Benzaldehyde
CAS#: 100-52-7
RTECS: Not applicable.
TSCA: TSCA 8(b) inventory: Benzaldehyde
CI#: Not applicable.
Synonym: Benzenecarboxaldehyde;artificial almond oil; benzene carbaldehyde; benzoic aldehyde
Chemical Name: Not applicable.
Chemical Formula: Not applicable.
Contact Information for Emergency: (0086) 551 65418678

Hefei TNJ Chemical Industry Co.,Ltd.
D1508 Xincheng Business Center
Qianshan Road, Hefei
230004Anhui
China

Tel : (0086) 551 65418678
Fax: (0086) 551 65418697
Email: info@tnjchem.com
Site: www.tnjchem.com

Section 2: Composition and Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
100-52-7	Benzaldehyde	> 99.0%	202-860-4

Hazard Symbols: XN

Risk Phrases: 22

Section 3: Hazards Identification

Appearance: Colorless or yellow liquid. Flash Point: 64 deg C. **Combustible liquid and vapor. Harmful if swallowed. Causes digestive and respiratory tract irritation. Causes eye and skin irritation. May cause central nervous system depression. May cause kidney damage.** Warning!
Target Organs: Kidneys, central nervous system.

Potential Health Effects

Eye: Causes eye irritation.

Skin: Causes skin irritation.

Ingestion: Harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.

Inhalation: Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. May cause respiratory tract irritation. May cause narcotic effects in high concentration.

Chronic: Prolonged or repeated skin contact may cause dermatitis. May cause kidney injury.

Section 4: First Aid Measures

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:

Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion:

If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Treat symptomatically and supportively.

Antidote:

None reported.

Section 5: Fire and Explosion Data

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back.

Extinguishing Media: Use water spray to cool fire-exposed containers. Use water spray, dry chemical, or foam. Use carbon dioxide.

Flash Point: 64 deg C (147.20 deg F)

Autoignition Temperature: 192 deg C (377.60 deg F)
Explosion Limits, Lower: 1.40%
Upper: 8.5%
NFPA Rating: (estimated) Health: 2; Flammability: 2; Instability: 0

Section 6: Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks:
Avoid runoff into storm sewers and ditches which lead to waterways.
Use water spray to disperse the gas/vapor. Remove all sources of ignition.
Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite.
Do not use combustible materials such as sawdust.

Section 7: Handling and Storage

Handling:
Wash thoroughly after handling.
Use only in a well-ventilated area.
Ground and bond containers when transferring material.
Avoid contact with eyes, skin, and clothing.
Empty containers retain product residue, (liquid and/or vapor), and can be dangerous.
Keep container tightly closed.
Keep away from heat, sparks and flame.
Avoid ingestion and inhalation.
Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.
Storage:
Keep away from heat and flame.
Keep away from sources of ignition.
Store in a tightly closed container.
Keep from contact with oxidizing materials.
Store in a cool, dry, well-ventilated area away from incompatible substances.
Keep away from reducing agents.
Do not store near alkaline substances.

Section 8: Exposure Controls/Personal Protection

Engineering Controls: Use adequate ventilation to keep airborne concentrations low.
Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Benzaldehyde	none listed	none listed	none listed

OSHA Vacated PELs: Benzaldehyde: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9: Physical and Chemical Properties

Appearance: Clear colorless Liquid
Odor: Characteristic odor of volatile oil of almonds.
pH: 5.9(1g/l H2O)
Vapor Pressure: 1 mm Hg @ 26.2 deg C (79F)
Vapor Density: 3.66
Evaporation Rate: Not available.
Viscosity: Not available.
Boiling Point: 179 deg C
Freezing/Melting Point:-26 deg C
Decomposition Temperature: Not available.
Solubility: Slightly soluble.
Specific Gravity/Density:1.05 @20 deg C
Molecular Formula:C6H5CHO
Molecular Weight:106.0414

Section 10: Stability and Reactivity Data

Chemical Stability: Stable.
Conditions to Avoid: High temperatures, incompatible materials, ignition sources.
Incompatibilities with Other Materials: Incompatible with strong oxidizing agents. Oxidizes in air to benzoic acid. Reacts dangerously with performic acid.
Hazardous Decomposition Products: Carbon monoxide, irritating and toxic gases, carbon dioxide.
Hazardous Polymerization: Has not been reported.

Section 11: Toxicological Information

RTECS#:

CAS# 100-52-7: CU4375000

LD50/LC50:

CAS# 100-52-7:

Draize test, rabbit, skin: 500 mg/24H Moderate;

Oral, mouse: LD50 = 28 mg/kg;

Oral, mouse: LD50 = 2020 mg/kg;

Oral, rat: LD50 = 1300 mg/kg;

Oral, rat: LD50 = 2400 mg/kg;

Carcinogenicity:

CAS# 100-52-7: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology: No information available.

Teratogenicity: TDLo (Oral, mouse) = 154 gm/kg/2Y-C; Gastrointestinal - tumors

Reproductive Effects: No information available.

Neurotoxicity: No information available.

Mutagenicity: Mutation,mammalian somatic cells(Mouse Lymphocyte)=400mg/L.Cytogenetic analysis(Rodent - hamster Lung) = 1 gm/L

Other Studies: Standard Draize Test: Administration onto the skin (rabbit) = 500 mg/24H (Moderate).

Section 12: Ecological Information

Ecotoxicity: Fish: Rainbow trout: LC50 =11 mg/L; 96 Hr.; UnspecifiedFish: Bluegill/Sunfish: LC50 =1.1-7.6 mg/L; 96 Hr.; UnspecifiedWater flea LC50 =5.0 mg/L; 24 Hr.; UnspecifiedBacteria: Phytobacterium phosphoreum: EC50 =4.85 - 6.11 mg/L; 5, 15, 30 Minutes; Microtox Test, 15 degrees C No data available.

Environmental: Based upon a measured log Kow of 1.48 and a water solubility of 6950 mg/l at 25 deg C, the BCF for benzaldehyde can be estimated to be 7.8 and 4.2, respectively, these BCF values suggest that the biconcentration in aquatic organisms is not important. A number of biological screening studies have demonstrated that benzaldehyde is readily biodegradable. Estimated Koc values of 34 and 150 suggest that benzaldehyde will leach readily.

Physical: Benzaldehyde has a BOD: 50%, 10 days; 150%, 5 days.

Other: Benzaldehyde absorbs UV irradiation weakly (extinction coefficient of 0-30/M-cu cm) in the spectra between 300 and 380 nm.

Section 13: Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA

guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14: Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	No information available.				BENZALDEHYDE
Hazard Class:					9
UN Number:					UN1990
Packing Group:					III

Section 15: Other Regulatory Information

US FEDERAL

TSCA

CAS# 100-52-7 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 100-52-7: flammable.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 100-52-7 can be found on the following state right to know lists: New Jersey, Pennsylvania, Minnesota, Massachusetts.

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

XN

Risk Phrases:

R 22 Harmful if swallowed.

Safety Phrases:

S 24 Avoid contact with skin.

WGK (Water Danger/Protection)

CAS# 100-52-7: 2

Canada - DSL/NDSL

CAS# 100-52-7 is listed on Canada's DSL List.

Canada - WHMIS

This product does not have a WHMIS classification.

Canadian Ingredient Disclosure List

CAS# 100-52-7 is listed on the Canadian Ingredient Disclosure List.

Exposure Limits

CAS# 100-52-7: OEL-HUNGARY:TWA 5 mg/m3;STEL 10 mg/m3 OEL-RUSSIA:STE

L 5 mg/m3

Section 16: Other Information

References: Not available.
Other Special Considerations: Not available.
Created: 10/09/2005 05:35 PM
Last Updated: 12/21/2016 12:00 PM

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall we m be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if we have been advised of the possibility of such damages.