



## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION:

<b>PRODUCT CODE</b>	N0014
<b>PRODUCT NAME</b>	NAT. BENZALDEHYDE
<b>SUPPLIER</b>	Shanghai M & U International Trade Co., Ltd. Rm 1717, No 598 North NuJiang Road 200333 Shanghai, China +86-21-32515501 32515502 sales@mu-intel.com

**FOR EMERGENCIES CALL CHEMTREC: 800-424-9300 (24-HOURS)**

### 2. HAZARD IDENTIFICATION:

#### Emergency Overview

#### OSHA Hazards

Targets Organs Effect, Harmful by ingestion., Harmful by skin absorption., Skin and respiratory sensitizer, Irritant

#### Target Organs

Central nervous system, Liver, Kidney

#### GHS Classification

Flammable liquids (Category 4)

Acute toxicity, Oral (Category 4)

Acute toxicity, Dermal (Category 4)

Skin Irritation (Category 2)

Eye irritation (Category 2B)

Respiratory sensitization (Category 1)

Skin sensitization (Category 1)

Acute aquatic toxicity (Category 2)

#### GHS Label elements, including precautionary statements

Pictogram None

Signal word Danger

#### Hazard statement(s)

H227 Combustible liquid

H302, H312 Harmful if swallowed or in contact with skin

H315, H320 Causes skin and eye irritation

H317 May cause allergy or asthma symptoms or breathing difficulties if inhaled

H401 Toxic to aquatic life.

#### Precautionary statement(s)

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray

P280 Wear protective gloves/ protective clothing

P305, P351, P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P342, P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

**HMIS Classification**

Health hazard 1

Flammability 2

Physical hazards 1

**NFPA Rating**

Health hazard 1

Fire 2

Reactivity Hazard 0

**Potential Health Effects**

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes Causes eye irritation.

Ingestion Harmful if swallowed.

**3. COMPOSITION AND INFORMATION ON INGREDIENTS:**

**Synonym** Benzoic Aldehyde

**Formula** C7 H6 O

**Molecular Weight** 106.12 g/mol

CAS-No	EC-No	Index-No.	Concentration
100-52-7	202-860-4	605-012-00-5	

**4. FIRST-AID GUIDE:**

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**5. FIRE-FIGHTING GUIDE:**

**Conditions of flammability**

Not flammable or combustible

**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**Hazardous combustion products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides

**Further information**

Under fire conditions, material may decompose to form flammable and/ or explosive mixtures in air. Use water spray to cool unopened containers.

**6. ACCIDENTAL RELEASE GUIDE:**

**Personal precautions**

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**Methods and materials for containment and cleaning up**

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep as suitable, closed containers for disposal.

**7. HANDLING AND STORAGE:**

**Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition -No smoking. Take measures to prevent the build up of electrostatic charge.

**Conditions for safe storage**

Store under nitrogen. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Air, light and moisture sensitive.

**8. EXPOSURE AND PERSONAL PROTECTION:**

**Personal protective equipment:**

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of

contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Eye protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin and body protection**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**9. PHYSICAL AND CHEMICAL PROPERTIES:**

**Appearance**

Form LIQUID  
Color COLORLESS TO PALE YELLOW

**Safety data**

pH	no data available
Melting point (°C)	-26
Boiling point (°C)	179
Flash point (°F) Closed cup	145
Ignition temperature	190°C
Vapor pressure (mmHg@20°C)	<1
Density	1.046
Water solubility	SLIGHT
Partition coefficient: n-octanol/water	log Pow: 1.5
Relative vapor density	3.7
Odor	BITTER, ALMOND-LIKE

**10. STABILITY AND REACTIVITY:**

**Chemical stability**

Stable under recommended storage conditions.

**Conditions to avoid**

Air exposure to moisture. Light, Heat, flames and sparks

**Materials to avoid**

Strong oxidizing agents. Strong reducing agents. Strong bases, Alkali metals, Aluminum, Iron, phenols, Oxygen

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides

**11. TOXICOLOGICAL INFORMATION:**

**Acute toxicity**

**Oral LD50**

LD50 Oral - rat - 1,300 mg/kg

Remarks: Behavioral: somnolence (general depressed activity) Behavioral: Coma

**Dermal LD50**

LD50 Dermal - rabbit - 1,250 mg/kg

**Skin corrosion/irritation**

Skin - rabbit - Skin irritation - 24 h

**Serious eye damage/eye irritation**

Eyes - rabbit - Mild eye irritation

**Respiratory or skin sensitization**

May cause allergic respiratory and skin reactions

**Germ cell mutagenicity**

Laboratory experiments have shown mutagenic effects

**Carcinogenicity**

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

**IARC:**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH:**

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**NTP:**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**OSHA:**

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Potential health effects**

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	Harmful if swallowed.
Skin	Harmful if absorbed through skin. May cause skin irritation.
Eyes	Causes eye irritation.

**Signs and Symptoms of Exposure**

Central nervous systems depression, Prolonger or repeated exposure to skin causes defatting and dermatitis.

**Additional Information**

RTECS: CU4375000

**12. ECOLOGICAL INFORMATION:****Toxicity**

Toxicity to fish	LC50 - Lepomis macrochirus - 1.07 mg/l - 96h mortality LOEC - Pimephales promelas (fathead minnow)- 0.45 mg/l - 7h mortality NOEC - Pimrphales promelas (fathead minnow)- 0.22 mg/l - 7h LC50 - Leuciscus idus (Golden orfe) - 62 mg/l - 48h
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Toxicity to daphnia EC50 - Daphnia magna (Water flea) - 50 mg/l -24h  
and other aquatic  
invertebrates

**Persistence and degradability**

Biodegradability Biotic/Aerobic  
Result: 95% - Readily biodegradable.

**Other adverse effects**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Toxic to aquatic life.

**13. DISPOSAL RECOMMENDATIONS:**

**Product**

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**

Dispose of as unused product.

**14. TRANSPORTATION INFORMATION:**

**DOT (US)**

UN number: 1990 Class: 9 Packing group: III  
Proper shipping name: Benzaldehyde  
Reportable Quantity (RQ)  
Marine pollutant: No  
Poison Inhalation Hazard: No

**IMDG**

UN number: 1990 Class: 9 Packing group: III  
Proper shipping name: Benzaldehyde  
Marine pollutant: No

**IATA**

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

**15. REGULATORY INFORMATION:**

**OSHA Hazards**

Targets Organ Effect, Harmful by ingestion., Harmful by skin absorption., Skin and respiratory sensitizer,  
Irritant

**SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**

Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components**

Benzaldehyde	CAS-No.	Revision Date
	100-52-7	2007-03-01

**Pennsylvania Right To Know Components**

Benzaldehyde	CAS-No.	Revision Date
	100-52-7	2007-03-01

**New Jersey Right To Know Components**

Benzaldehyde	CAS-No.	Revision Date
	100-52-7	2007-03-01

**California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**16. OTHER INFORMATION:**

The information in this MSDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond M&U's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the MSDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the MSDS. The user should review these regulations to ensure full compliance.