

**SECTION 1: CHEMICAL PRODUCT and COMPANY IDENTIFICATION**

Product Name: Butyraldehyde 98%  
Product Code: B31340  
Supplier: Pfaltz & Bauer, Inc.  
172 E. Aurora Street  
Waterbury, CT 06708 USA  
Phone: 203 574-0075  
Fax: 203 574-3181  
Emergency Phone: CHEMTREC, US: 1-800-424-9300  
CHEMTREC, International: 1-703-527-3887

**SECTION 2: COMPOSITION/INFORMATION on INGREDIENTS**

Chemical Name: Butyraldehyde  
Synonyms: Butal 98%, Butaldehyde 98%, Butanal 98%, Butyl Aldehyde 98%, Butyral 98%, Butyric Aldehyde 98%  
CAS Number: 123-72-8  
MDL Number: MFCD00007023  
EC Number: 204-646-6  
Beilstein Reg. Number: 204-646-6  
Molecular Formula: CH<sub>3</sub>CH<sub>2</sub>CH<sub>2</sub>CHO  
Molecular Weight: 72.11

**SECTION 3: HAZARDS IDENTIFICATION**

Acute Health Hazard: Irritant to eyes, skin, mucous membranes and respiratory system. May be harmful by ingestion, inhalation or skin absorption.  
Chronic Health Hazard: Not Available  
HMIS Rating: H:2 F:3 P:0  
NFPA Rating: H:2 F:3 R:0

To the best of our knowledge, the toxicological properties of this chemical have not been thoroughly investigated. Use appropriate procedures and precautions to prevent or minimize exposure.

#### **SECTION 4: FIRST AID MEASURES**

<u>Eye Contact:</u>	Flush eyes with large amounts of water for fifteen minutes. Separate eyelids with fingers. If irritation persists, seek medical attention.
<u>Skin Contact:</u>	Wash skin with soap and water. If irritation persists, seek medical attention.
<u>Ingestion:</u>	Do not induce vomiting. Seek medical attention.
<u>Inhalation:</u>	Move to a fresh air environment. Contact a physician if breathing becomes difficult.

#### **SECTION 5: FIRE FIGHTING MEASURES**

<u>Flash Point:</u>	-5 °C
<u>Explosion Limits:</u>	Lower: 1.80 % by volume Upper: 8.00% by volume
<u>Auto Ignition Temperature:</u>	190 °C
<u>Extinguishing Media:</u>	Carbon dioxide, dry chemical powder or foam, water flooding.
<u>Protective Equipment:</u>	Wear self-contained respirator and fully protective impervious suit.
<u>Specific Hazards:</u>	Emits hazardous fumes under fire conditions.

#### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

<u>Personal Protection:</u>	Wear a self-contained breathing apparatus, rubber boots and gloves, and disposable coveralls. Dispose of coveralls after use. Keep unprotected persons away.
<u>Environmental Protection:</u>	Keep spills out of sewers and bodies of water. Dike and contain the spill with inert material. Absorb on sand, vermiculite or diatomite. Transfer material to a container for disposal or recovery. Ventilate area and wash spill site after material pickup is complete. Vapors can accumulate in low areas to form explosive concentrations.

#### **SECTION 7: HANDLING and STORAGE**

<u>Handling:</u>	Avoid breathing dust, vapor, mist or gas. Avoid contact with skin and eyes. Avoid prolonged or repeated exposure. Use only in a chemical fume hood. Open and handle container with care. Keep ignition sources away.
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Storage: Store in a tightly closed container in a dry, well-ventilated place. Dry residue is explosive.

Storage Temperature: 15 - 30°C

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

Eyes: Wear appropriate protective eyeglass or chemical safety goggles. Eyewash facility in vicinity.

Skin: Wear impervious gloves and protective clothing.

Respiratory: Use a NIOSH approved respirator when exposure limits are exceeded or if irritation or other symptoms are experienced.

<u>Exposure Limits:</u>	<u>Country</u>	<u>Source</u>	<u>Type</u>	<u>Value</u>
	USA	ACGIH	TWA	Not Available
	USA	OSHA	PEL	Not Available

## **SECTION 9: PHYSICAL and CHEMICAL PROPERTIES**

Appearance: Clear Colorless Liquid

Odor: Unpleasant Stench

Melting Point: -96 °C

Boiling Point: 75-76 °C

Density: 0.8 g/mL

Refractive Index,  $n_D^{20}$ : 1.380

Viscosity: Not Available

Solubility in Water: Soluble

## **SECTION 10: STABILITY and REACTIVITY**

Stability: Stable under normal temperatures and pressures.

Incompatibility: Strong oxidizing agents, strong reducing agents, strong acids, strong bases.

## **SECTION 11: TOXICOLOGICAL INFORMATION**

RTECS Number: ES2275000

Target Organs: Not Available

Toxicity Data: Oral Rat  $Ld_{50}$ : 2,490 mg/kg

Skin Rabbit  $LD_{50}$ : 3,560 mg/kg

Genotoxicity in vitro - Hamster - ovary  
Sister chromatid exchange

Genotoxicity in vitro - Hamster - Lungs  
Mutation in mammalian somatic cells.  
Genotoxicity in vitro - rat - Liver  
Unscheduled DNA synthesis  
Genotoxicity in vitro - Mammal - lymphocyte  
DNA damage  
Genotoxicity in vivo - mouse - Oral  
sperm  
Genotoxicity in vivo - mouse - Intraperitoneal  
sperm

## **SECTION 12: ECOLOGICAL INFORMATION**

Not Available

## **SECTION 13: DISPOSAL CONSIDERATIONS**

Contact a licensed professional waste disposal service. Dispose in a manner consistent with federal, state and local environmental regulations.

## **SECTION 14: TRANSPORT INFORMATION**

DOT Shipping Name: Butyraldehyde

DOT UN Number: UN1129

DOT Hazard Class: 3

DOT Packing Group: PG II

IATA Shipping Name: Butyraldehyde

IATA UN Number: UN1129

IATA Hazard Class: 3

IATA Packing Group: PG II

## **SECTION 15: REGULATORY INFORMATION**

### United States:

Toxic Substance Control Act (TSCA): Listed

Superfund Amendments and Reauthorization Act (SARA 302): Not listed

Superfund Amendments and Reauthorization Act (SARA 313): Listed

### European Union:

European Inventory of Existing Chemical Substances (EINECS): No. 204-646-6

### Canada

Canadian Domestic Substances List (DSL): Listed

Canadian Domestic Substances List (NDSL): Listed

## **SECTION 16: OTHER INFORMATION**

Date Prepared: MH 11/17/09

The information above is presented in good faith. It is believed to be accurate and represents the best information currently available to us. However we make no warranty with respect to such information and we assume no liability resulting from its use. The user should consider this information as a supplement to other information that may be available and make independent judgment to ensure proper use to protect the health and safety of employees and the environment. Pfaltz and Bauer shall not be held liable for any damage resulting from handling or from contact with the above product.