

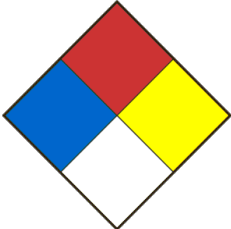


SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier BUTYRALDEHYDE		Product Use Laboratory use	
Chemical formula C ₄ H ₈ O		Product code BR-0151	Molar weight 72,11
Chemical name / Commercial name / Synonymous BUTANAL, BUTAL, ALDEHYDE BUTYRIQUE, BUTANALDEHYDE, BUTYRAL,			
Supplier's name Laboratoire MAT		Address-Street 610, Adanac Street	
City Québec		Province Québec	
Postal code G1C 7B7	Internet www.labmat.com	Phone number 418-660-8666 Lun-Ven 8h-16h	
Emergency phone	418-660-8666 Lun-Ven 8h-16h CENTRE ANTI-POISON DU QUÉBEC 800-463-5060		
Date SDS 8/7/2024	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Flammable liquids category 2 Serious eye damage/ Eye irritation category 2A	
Signal Word	DANGER	
Hazards statements (H)	H225 Highly flammable liquid and vapor. H319 Causes serious eye irritation.	
Precautionary statements (P)	P210 Keep away from heat, sparks, open flames, hot surfaces. — No smoking. P233 Keep container tightly closed. P240 Ground and bond container and receiving equipment. P241 Use explosion-proof equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P264 Wash the areas of the body that have been in contact with the product after handling. P280 Wear protective gloves, protective clothing and eye and face protection. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. 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. P370 + P378 In case of fire: Use water spray or alcohol-resistant foam, or dry powder or carbon dioxide for extinction. P403 + P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.	
PICTOGRAMS		
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)	
	Health 2 Fire 4 Reactivity 0 Special danger	

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%P/P)
Butyraldéhyde	123-72-8	<=100

SECTION 05 - FIREFIGHTING MEASURES

Flammability	Yes
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Data not available.
Hazardous combustion products	Hazardous combustion products formed under fire conditions: Carbon oxides.
Specific hazards of the dangerous product	Vapors may rise to the source of ignition and flash back. May react violently with incompatible products (Ref Section 10).
Special protective equipment and precautions for firefighters	Discard incompatible substances if this can be done without risk. Firefighters should be equipped with standard protective equipment, fireproof clothing, face mask, gloves, protective boots and, where appropriate, self-contained breathing apparatus.

SECTION 06 - ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up / Personal precautions, protective equipment	Evacuate personnel to safe areas. Recommended distance: at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids. Remove all sources of ignition. Avoid breathing vapors, mist or gas. Absorb the product with sand or vermiculite. Dilute residues with water, clean and rinse. Ensure a good ventilation of the premises. Dispose of residues in a container for disposal of hazardous materials. When handling, wear suitable safety equipment. Use breathing apparatus if necessary. Do NOT use absorbents composed with minerals, clay, or cellulose. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. Do not let product enter drains. Discharge into the environment must be avoided.
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SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Keep container tightly closed in a dry and well-ventilated place. Keep container tightly closed and store away from heat, moisture, and incompatible products. Recommended storage temperature 2 - 8 ° C. Keep away from sources of ignition - No smoking. Take measures to prevent the accumulation of electrostatic charges.
Methods of handling	Avoid contact with the skin, eyes and clothes. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. The dry residue is explosive. Avoid ingestion and inhalation. Wear personal protective equipment when handling. Always ensure good ventilation. Apply the usual standard hygiene rules: Wash your hands after use. Do not eat or drink during use.

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid.
Appearance	Clair et incolore.
Odour	Âcre.
Odour threshold	0.0046ppm
pH	6.0-7.0 à 71 g/L À 20°C.
Melting point / Freezing point	-96°C
Initial boiling point	75°C
Boiling range	Data not available
Flash point	-5°C
Evaporation rate	Data not available
Flammability	Yes
Lower flammable / Explosive limit	1.9%
Upper flammable / Explosive limit	12.5%
Vapour pressure	91.5mmHg à 20°C.
Vapour density	2.49 (Air = 1)-
Relative density	0.8g/cm ³
Solubility	Soluble dans l'eau. Miscible avec l'éthanol, éther, acétone..
Partition coefficient water/n-octanol	logP : 0.8.
Auto-ignition temperature	218°C
Decomposition temperature	Data not available
Viscosity	0.45 cP à 20°C.

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Flammable product, may ignite with source of ignition, if temperature above flash point. May react violently with incompatible substances. May form explosive mixtures with air on intense heating.
Chemical stability	Stable under recommended storage conditions. Air sensitive. May form explosive peroxides. Sensitive to light.
Possibility of hazardous reactions	Highly flammable liquid and vapors. May react violently with incompatible substances. Vapors may form explosive mixtures with air when heated. May polymerize under the following conditions: If heated. If prolonged exposure to air. If presence of impurities or contaminants which could act as polymerization initiators. Polymerization can also occur in the presence of acids or caustics.
Conditions to avoid, including static discharge, shock or vibration	Avoid contact with incompatible materials and extreme temperatures. Heat, flames and sparks. Exposure to light. Avoid the accumulation of static electricity. Avoid exposure to air.
Incompatible materials	Oxydants. Strong bases. Strong acid. Strong reducing agents. Violent reaction with: Sulfuric acid. Nitric acid. Chlorosulfonic acid.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Carbon oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

BUTYRALDEHYDE

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation and burns of the eye tissue that can lead to corneal ulceration and blindness.
- Skin	Irritation and tissue burns.
- Inhalation	Irritation of the mucous membranes and the upper respiratory system.
Acute toxicity (Ingestion)	To our knowledge, the product has not been fully studied.
Chronic exposure effects / symptoms	Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 5890 mg/kg LD50 Dermal - Rabbit - 3560 mg/kg
CL50 (specify species and route of entry)	CL50 inhalation - Rat > 5.46 mg/L - 4 h

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	LC50 - Pimephales promelas (fathead minnow) - Static test: 25.8 mg/L - 96 h. Flow-through test - 13.0-13.8 mg/L - 96 h. EC50 - Daphnia magna (Water flea) - Static test: 195 mg/L - 24 h. CE50 - Photobacterium phosphoreum (Luminescent bacteria) - 99.1 mg/L - 25 min.
Persistence and degradability	Persistence and degradability Aerobic Biodegradability - Exposure Duration 5 d Aldrich - W221902 Page 7 of 8 Result: 46 - 57% - Readily biodegradable. (OECD Test Guideline 301 C). BOD ratio / DBOthéorique 28 - 43%.
Bioaccumulative potential	No bioaccumulation is to be expected (log Pow <= 4).
Mobility in soil	Probable mobility in the environment due to its solubility in water.
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.
Contaminated Packaging	Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

UN Number	1129
UN Proper shipping name	BUTYRALDÉHYDE
Transport hazard class(es)	3 Flammable liquids
Packing group	II
Limited quantity index	1L
ERAP Index	-
Special precautions	-

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Flammable liquids category 2 Serious eye damage/ Eye irritation category 2A
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SECTION 16 - OTHER INFORMATION

Further information

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

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