



Centre Anti-Poison pour le Québec: (800) 463-5060

Tél. (Qc): (418) 660-8666 / 800-890-8666


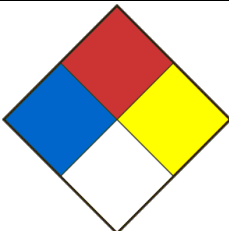
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## SAFETY DATA SHEET

### SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier TRI-n-BUTYLE PHOSPHATE		Product Use Laboratory use	
Chemical formula (CH <sub>3</sub> (CH <sub>2</sub> ) <sub>3</sub> O) <sub>3</sub> P(O)		Product code TR-0163	Molar weight 266,32
Chemical name / Commercial name / Synonymous TBP, Tributyl phosphate, PHOSPHORIC ACID TRIBUTYL ESTER, TRI-N-BUTYL PHOSPHATE, TRIBUTYL PHOSPHATE (NORMAL-)			
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 / 800-890-8666	
Emergency phone	CANUTEC: 613-996-6666		CENTRE ANTI-POISON DU QUÉBEC 800-463-5060
Date SDS 9/21/2021	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

## SECTION 02 - HAZARDS IDENTIFICATION

<b>Classification WHIMS / GHS</b>	Acute toxicity - Oral category 4 Skin corrosion/irritation - Skin irritation category 2 Carcinogenicity category 2
<b>Signal Word</b>	WARNING
<b>Hazards statements (H)</b>	H302 Harmful if swallowed. H315 Causes skin irritation. H351 Suspected of causing cancer.
<b>Precautionary statements (P)</b>	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P264 Wash the areas of the body that have been in contact with the product after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P308 + P313 IF exposed or concerned: Get medical advice/attention. P321 Specific treatment (see section 4 of the SDS and on this label). P330 Rinse mouth. P332 + P313 If skin irritation occurs: Get medical advice/attention. P362 + P364 Take off contaminated clothing and wash it before reuse. P405 Store locked up. P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company. P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
<b>PICTOGRAMS</b>	
<b>Other dangers</b>	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)
	<b>Health</b> 3 <b>Fire</b> 1 <b>Reactivity</b> 0 <b>Special danger</b>

## SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
PHOSPHATE DE TRI-n-BUTYLE	126-73-8	<=100

## SECTION 04 - FIRST AID MEASURES

<b>Eye contact</b>	Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. If irritation persists, seek medical attention.
<b>Skin contact</b>	Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. If irritation persists, seek medical attention.
<b>Inhalation</b>	Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Consult a physician.
<b>Ingestion</b>	If the person is conscious, rinse the mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.
<b>Most important symptoms and effects (acute and delayed)</b>	Main symptoms of high exposure: Skin, eye and respiratory system irritation. Central nervous system stimulation. Headaches. Nausea. Dizziness. Feeling drunk. Drowsiness. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated. Ref. section 11.
<b>Immediate medical attention and special treatment, if necessary</b>	In case of medical consultation, keep this sheet available.
<b>General advice</b>	Show this safety data sheet to the doctor in attendance.

## SECTION 05 - FIREFIGHTING MEASURES

<b>Flammability</b>	No
<b>Ignition conditions</b>	It is not considered flammable, but can burn at high temperatures.
<b>Suitable extinguishing media</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Unsuitable extinguishing media</b>	Data not available.
<b>Hazardous combustion products</b>	Hazardous combustion products formed under fire conditions: Carbon oxides. Phosphorus oxides Phosphine.
<b>Special fire and explosion hazards</b>	May react violently with incompatible products (Ref Section 10).
<b>Special protective equipment and precautions for firefighters</b>	Wear self contained breathing apparatus for fire fighting if necessary.

## SECTION 06 - ACCIDENTAL RELEASE MEASURES

<b>Methods and materials for containment and cleaning up / Personnel precautions, protective equipment</b>	Evacuate personnel to safe areas. 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 let product enter drains.
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## SECTION 07 - HANDLING AND STORAGE

<b>Conditions for safe storage</b>	Store in a cool, dry place. Store in a well-ventilated area. Keep container tightly closed and store away from heat, moisture, and incompatible products. Protect from light and sunlight.
<b>Methods of handling</b>	Always open containers slowly to allow any excess pressure to vent. Avoid inhalation of vapor or mist. Bottle in the glass preferably. NOTE: this product attacks certain types of plastics and rubbers. Wear personal protective equipment when handling. Always ensure good ventilation. Transport according to TDG (ref Section 14)

## SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

### Workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Tributyl phosphate	126-73-8	TWA	0.2 ppm 2.2mg/m <sup>3</sup>	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	0.2 ppm	Canada. British Columbia OEL
		TWAEV	5mg/m <sup>3</sup>	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	5mg/m <sup>3</sup>	Canada. Ontario OELs

<b>Data source</b>	CNESST Fisher Scientific
<b>Ventilation</b>	Use fan.
<b>Respiratory</b>	If work under the hood is not possible, or if the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
<b>Gloves</b>	Handle with gloves.
<b>Eyes</b>	Safety goggles with safety shutters.
<b>Shoes</b>	Safety shoes.
<b>Clothing</b>	Labcoat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
<b>Engineering control</b>	Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values.

## SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state</b>	Liquid.
<b>Appearance</b>	Liquide huileux , incolore à jaunâtre-
<b>Odour</b>	Âcre.
<b>Odour threshold</b>	Data not available
<b>pH</b>	Donnée non disponible.
<b>Melting point / Freezing point</b>	-79°C
<b>Initial boiling point</b>	289°C (dec)
<b>Boiling range</b>	Data not available
<b>Flash point</b>	193 °C Coupelle fermée.
<b>Evaporation rate</b>	Donnée non disponible-
<b>Flammability</b>	No
<b>Lower flammable / Explosive limit</b>	Data not available
<b>Upper flammable / Explosive limit</b>	Data not available
<b>Vapour pressure</b>	36 hPa (27 mmHg) à 178°C / 9.7 hPa (7.3 mmHg) à 150 °C.
<b>Vapour density</b>	9.19 -(Air = 1.0 )-
<b>Relative density</b>	0.982g/ml à 20°C
<b>Solubility</b>	légèrement soluble (<1mg/ml).
<b>Partition coefficient water/n-octanol</b>	0.0001-
<b>Auto-ignition temperature</b>	400-482°C
<b>Decomposition temperature</b>	177°C
<b>Viscosity</b>	Data not available

## SECTION 10 - STABILITY AND REACTIVITY

<b>Reactivity</b>	May react violently with incompatible substances.
<b>Chemical stability</b>	Stable under recommended storage conditions. Sensitive to light. Sensitive to heat. Moisture sensitive.
<b>Possibility of hazardous reactions</b>	May react violently with incompatible substances.
<b>Conditions of instability (Including sensitivity to shock / static discharge / vibration)</b>	Avoid excessive heat and humidity. Avoid contact with incompatible materials and extreme temperatures.
<b>Incompatible material</b>	Strong oxidizers, strong bases. Attacks rubber and some plastics.
<b>Hazardous decomposition products</b>	Hazardous decomposition products formed under fire conditions. Toxic vapors of carbon monoxide and carbon dioxide. Phosphorus oxides. Phosphine.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### TRI-N-BUTYLE PHOSPHATE

<b>Routes of exposure</b>	Ingestion, inhalation, skin contact.
<b>Acute exposition effects / symptoms:</b>	By exposure route below.
<b>- Eyes</b>	Irritation.
<b>- Skin</b>	Irritation.
<b>- Inhalation</b>	Central nervous system depression. Headache, dizziness, nausea and vomiting. May cause respiratory tract irritation.
<b>Acute toxicity (Ingestion)</b>	Harmful if swallowed. To our knowledge, the product has not been fully studied.
<b>Chronic exposure effects / symptoms</b>	Depression of the central nervous system. Some sources indicate that the product is carcinogenic. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
<b>DL50 (specify species and route of entry)</b>	LD50 Oral - Rat - male and female - 1,552 mg/kg. LD50 Dermal - Rabbit - >5000 mg/kg.
<b>CL50 (specify species and route of entry)</b>	LC50 Inhalation - Rat - 4h - 4 mg/l

## SECTION 12 - ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Toxicity to fish: CL50 - Carassius auratus (Gold fish) - 8.8 mg/l - 96 h. Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna (Water flea) - 3.6 mg/l - 48 h. Toxicity to algae: EC50 - Desmodesmus subspicatus (green algae) - 1.1 mg/l - 72 h.
<b>Persistence and degradability</b>	Biodegradability aerobic Result: 89 % - Readily biodegradable.
<b>Bioaccumulative potential</b>	Bioaccumulation Oryzias latipes - 38 d Bioconcentration factor (BCF): 21 - 35.
<b>Mobility in soil</b>	Data not available.
<b>Other adverse effects</b>	Harmful to aquatic life with long lasting effects. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## SECTION 13 - DISPOSAL CONSIDERATIONS

<b>Waste Disposal Method</b>	Dispose of contents / container in accordance with local / regional / national / international regulations / or contact a specialist waste disposal company.
<b>Contaminated Packaging</b>	Dispose of as unused product.

## SECTION 14 - TRANSPORT INFORMATION

<b>UN Number</b>	N/R
<b>UN Proper shipping name</b>	
<b>Transport hazard class(es)</b>	
<b>Packing group</b>	
<b>Limited quantity index</b>	
<b>ERAP Index</b>	
<b>Special precautions</b>	

## SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Acute toxicity - Oral category 4 Skin corrosion/irritation - Skin irritation category 2 Carcinogenicity category 2
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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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