

**SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION**

**CAS Number:** 79-94-7  
**Product Name:** Tetrabromobisphenol A (TBBA)  
**Revision Date:** Dec 24, 2020 **Date Printed:** Jan 05, 2021  
**Version:** 1.0 **Supersedes Date:** N.A.  
**Manufacturer's Name:** Thames River Chemical Corp.  
**Address:** 5230 Harvester Road Burlington, ON, CA, L7L 4X4  
**Emergency Phone:** CHEMTREC (800) 424-9300  
**Information Phone Number:** 905-681-5353  
**Fax:** 905-681-5377  
**Product/Recommended Uses:** For laboratory or industrial use only.

**SECTION 2) HAZARDS IDENTIFICATION****Classification**

Acute aquatic toxicity - Category 1  
Chronic aquatic toxicity - Category 1

**Pictograms****Signal Word**

Warning

**Hazard Statements - Environmental**

Very toxic to aquatic life with long lasting effects

**Precautionary Statements - General**

If medical advice is needed, have product container or label at hand.  
Keep out of reach of children.  
Read label before use.

**Precautionary Statements - Prevention**

Avoid release to the environment.

**Precautionary Statements - Response**

Collect spillage.

**Precautionary Statements - Storage**

No precautionary statement available.

**Precautionary Statements - Disposal**

Dispose of contents/container in accordance with local/national/international regulation. Waste management should be in full compliance with national, regional and local laws.

**Physical Hazards Not Otherwise Classified**

No data available.

## Health Hazards Not Otherwise Classified

No data available.

Acute toxicity of 100% of the mixture is unknown

## SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
0000079-94-7	TETRABROMOBISPHENOL A	100%

## SECTION 4) FIRST-AID MEASURES

### 4.2 Most important symptoms and effects, both acute and delayed

#### Inhalation

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

#### Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists, get medical advice or attention.

#### Skin Contact

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

#### Ingestion

Rinse mouth. Never give anything through mouth to an unconscious person. Call a POISON Center or doctor if you feel unwell.

### Most Important Symptoms and Effects, Both Acute and Delayed

No data available.

### Indication of Any Immediate Medical Attention and Special Treatment Needed

No data available.

## SECTION 5) FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Use dry chemical, CO<sub>2</sub>, water spray or alcohol resistant foam.

### Unsuitable Extinguishing Media

No data available.

### Specific Hazards in Case of Fire

Carbon Oxides, Hydrogen bromide gas

### Fire-fighting Procedures

Use appropriate extinguishing measure suitable for surrounding fire.

### Special Protective Actions

Wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

### 5.3 Advice for firefighters

Firefighters should wear NIOSH/MSHA approved self-contained, breathing apparatus and full protective clothing

## SECTION 6) ACCIDENTAL RELEASE MEASURES

### Emergency Procedure

Isolate hazard area and keep unauthorized personnel away. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

### Recommended Equipment

Wear chemical protective clothing.

### Personal Precautions

Avoid breathing vapor or mist. Avoid contact with skin, eye or clothing.

### Environmental Precautions

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

### Methods and Materials for Containment and Cleaning up

Sweep up or scoop up material carefully, and then place into a suitable disposal container for disposal according to local regulations.

### 6.3 Methods and Materials for Containment and Cleaning up

Pick up and arrange disposal. Keep in suitable, closed containers for disposal.

## SECTION 7) HANDLING AND STORAGE

### General

Wash hands after use. Do not get in eyes, on skin or on clothing. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited.

### Ventilation Requirements

Use only with adequate ventilation to control air contaminants to their exposure limits.

### Storage Room Requirements

Store in a cool, dry place. Store in a tightly closed container.

## SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

### Eye protection

Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.

Wear indirect-vent, impact and splash resistant goggles when working with liquids

### Skin Protection

Use chemical resistant gloves when skin contact could occur. Gauntlet-type gloves may be required if forearm contact could occur. Examples of acceptable glove materials include: viton, natural rubber, polyvinyl chloride, nitrile rubber. Glove suitability and breakthrough time will differ depending on specific use conditions.

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory Protection

Respiratory protection should be worn when there is a potential to exceed the exposure limits or when adverse effects, such as respiratory irritation or discomfort are experienced. Depending upon the airborne exposure, the following types of air-purifying respirators are recommended: NIOSH-approved supplied air respirator operated in positive pressure mode or a NIOSH-approved supplied air respirator.

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 should be followed. Check with respiratory protective equipment suppliers.

## Appropriate Engineering Controls

Maintain air concentrations below occupational exposure levels and flammable limits. Use local explosion-proof exhaust ventilation for operations that produce a mist, vapour or fume.

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

## 8.2 Exposure Controls

Eye contact should be prevented through use of chemical safety glasses with side shields or splash proof goggles.

Chemical Name	CANsmg	CANppm	CANtmg	CANtppm	OSHA STEL (mg/m3)	OSHA STEL (ppm)	OSHA TWA (mg/m3)	OSHA TWA (ppm)
No applicable chemical	-	-	-	-	-	-	-	-

Chemical Name	OSHA Carcinogen	OSHA Tables (Z1, Z2, Z3)	OSHA Skin designation	ACGIH STEL (mg/m3)	ACGIH STEL (ppm)	ACGIH TWA (mg/m3)	ACGIH TWA (ppm)	ACGIH TLV Basis
No applicable chemical	-	-	-	-	-	-	-	-

Chemical Name	ACGIH Carcinogen	ACGIH Notations
No applicable chemical	-	-

## SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

### Physical and Chemical Properties

Density	8.35 lb/gal
Specific Gravity	1.00
Appearance	powder white
Odor Description	odourless
Odor Threshold	N/A
pH	N/A
Melting/Freezing Point	178-181 °C
Low Boiling Point	316 °C
High Boiling Point	N/A
Flash Point	N/A
Vapor Pressure	<1.19x10E-5 Pa (20°C)
Vapor Density	N/A
Evaporation Rate	N/A
Upper Explosion Level	N/A
Lower Explosion Level	N/A
Water Solubility	1.26 mg/l (ph=7) @ 25°C
Coefficient Water/Oil	log Pow:5.903 at 25°C
Viscosity	N/A

**SECTION 10) STABILITY AND REACTIVITY****Reactivity**

No data available.

**Possibility of hazardous reactions**

No data available.

**Stability**

Stable under normal storage and handling conditions.

**Conditions to Avoid**

No data available

**Hazardous Reactions/Polymerization**

No data available.

**Incompatible Materials**

Strong oxidizing agents

**Hazardous Decomposition Products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen bromide gas

**10.6 Hazardous Decomposition Products**

Decomposition products depend upon temperature, air supply, and the presence of other materials. Combustion products may include and are not limited to: smoke, carbon monoxide, carbon dioxide, and oxides of nitrogen.

**SECTION 11) TOXICOLOGICAL INFORMATION****Likely Route of Exposure**

Inhalation, ingestion, skin absorption

**Acute Toxicity**

Acute toxicity  
LD50 Oral - Rat - male and female > 5,000 mg/kg  
LC50 Inhalation - Rat - male and female - 8h  $\geq$  0.5 mg/l  
LD50 Dermal- Rabbit - male and female > 2,000 mg/kg

**Information on toxicological effects****Carcinogenicity**

May cause cancer by inhalation IARC: 2A - Group 2A: Probably carcinogenic to humans (2,2,6,6,- Tetrabromo-4,4-isopropylidenediphenol)

**Germ Cell Mutagenicity**

None.

Based on available data, the classification criteria are not met.

**Reproductive Toxicity**

No data available.

**Respiratory/Skin Sensitization**

Minimal irritation, if any

**Serious Eye Damage/Irritation**

No eye irritation

**Skin Corrosion/Irritation**

Skin - Rabbit  
Result: No skin irritation - 24h

Do not cause skin sensitisation.

**Specific Target Organ Toxicity - Repeated Exposure**

No data available.

**Specific Target Organ Toxicity - Single Exposure**

No data available.

**SECTION 12) ECOLOGICAL INFORMATION****Toxicity**

Toxicity to fish:

LC50- Cyprinus carpio: 0.71 mg/l - 96h

LC50 - Daphnia magna (Water flea): >1.8 mg/l - 48h

Toxicity to algae: NOEC- Selenastrum capricornutum (green algae): 5.6 mg/l -96 h

EC50:- Sludge Treatment: 5- 30 mg/l - 3 h

Very toxic to aquatic life

Very toxic to aquatic life with long lasting effects

**Mobility in Soil**

No data available.

**Bio-accumulative Potential**

No data available.

**Persistence and Degradability**

Biodegradability: Aerobic - Exposure time 14d

Result: 0% - Not readily biodegradable  
(OECD Test Guideline 301C)

**Other Adverse Effects**

No data available.

**Results of the PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher

**SECTION 13) DISPOSAL CONSIDERATIONS****13.1 Waste Treatment Methods**

Waste management should be in full compliance with federal, state and local laws.

**Waste Disposal**

It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, provincial and local laws.

**SECTION 14) TRANSPORT INFORMATION****Transport Canada Information**

UN Number: UN3077

Proper shipping name: Environmentally Hazardous Substance, Solid, N.O.S. (2,2,6,6-Tetrabromo-4-4-isopropylidenediphenol)

Class:9

Packaging group:III

## IMDG Information

UN Number: UN3077  
Proper shipping name: Environmentally Hazardous Substance, Solid, N.O.S. (2,2,6,6-Tetrabromo-4-4-isopropylidenediphenol)  
Class:9  
Packaging group:III

## IATA Information

UN Number: UN3077  
Proper shipping name: Environmentally Hazardous Substance, Solid, N.O.S. (2,2,6,6-Tetrabromo-4-4-isopropylidenediphenol)  
Class:9  
Packaging group:III

## SECTION 15) REGULATORY INFORMATION

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## SECTION 16) OTHER INFORMATION

### Glossary

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CANsmg or CANspmm - Canadian Short Term Exposure Level in mg/L or in ppm; CANtmg or CANtppm - Canadian Time Weighted Average in mg/L or in ppm; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center(US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self Contained Breathing Apparatus; STEL-Short Term Exposure Limit; TCEQ Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

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