



PyroVex[®] B-110 Diol

SECTION 1: Identification

1.1 Product identifier

Trade Name: PyroVex[®]B-110 Diol

CAS-No. : 77098-07-8
20566-35-2

Chemical Name: 2-(2-hydroxyethoxy)ethyl 2-hydroxypropyl 3,4,5,6-tetrabromophthalate

1.2 Relevant identified uses of the substance or mixture and uses advised against

1.2.1 Relevant identified uses:

Formulation flame retardant preparation
PU foam production for insulation

1.2.2 Uses advised against:

No specific uses advised against have been identified.

1.3 Details of the supplier of the safety data sheet

Velsicol Chemical LLC.

10400 W. Higgins Road, Suite 303

Rosemont, Illinois 60018 USA

Phone: (847) 813-7888

Fax: (847) 768-3227

www.velsicol.com

1.4 Emergency telephone number

Outside the continental U.S.A. call CHEMTREC 1-800-424-9300 (24 hours)

In the continental U.S.A. call CHEMTREC 703-527-3887 (24 hours)

SECTION 2: Hazards Identification

2.1 Hazard classification and Hazard statement(s):

Human Effects: Not expected to be acutely toxic. Not expected to be an irritant.

Environmental Effects: None known

Other Effects: None known

Not classified under GSH.

2.2 Precautionary statements:

Not classified. Handle in accordance with good industrial hygiene and safety practice.

2.3 Signal Word:

2.4 Pictograms:

2.5 Other hazards:

No data available

2.6 Additional Information:

No data available



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SECTION 3: Composition/information on ingredients:

3.1 Substances:

Chemical Name	Common name and synonyms	CAS number	% by Weight
2-(2-hydroxyethoxy)ethyl 2-hydroxypropyl 3,4,5,6-tetrabromophthalate	Diester/ether diol of tetrabromophthalic anhydride; Diol ester of tetrabromophthalic anhydride (TBPA Diol).	77098-07-8 20566-35-2	>98

Formula: C₁₅H₁₆Br₄O₇

3.2 Impurities and stabilizing additives:

No data available

SECTION 4: First-Aid Measures

4.1 Description of first aid measures

4.1.1 General information:

Viscous liquid. Not expected to be acutely toxic. Not expected to be an irritant.

4.1.2 Following inhalation:

Immediately leave the contaminated area; take deep breaths of fresh air.

4.1.3 Following skin contact:

Immediately wash skin with soap and plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse.

4.1.4 Following eye contact:

First check the victim for contact lenses and remove if present. Flush victim's eyes with water for 15 or more minutes. Do not put any ointments, oils, or medication in the victim's eyes without specific instructions from a physician.

4.1.5 Following ingestion:

Give 500 ml water to drink. Do not induce vomiting.

4.1.6 Self-protection of the first aider:

Wear protective gloves/protective clothing/eye protection. Do not get in eyes, on skin, or on clothing.

4.1.7 Notes for the doctor:

Not available

4.2 Most important symptoms and effects, both acute and delayed

Not available

4.3 Indication of any immediate medical attention and special treatments needed

Not available.

SECTION 5: Fire-Fighting Measures

5.1 Extinguishing media

- Flammability Properties: No flammable.
- Flash Point: 221 °F (105 °C)
- Suitable extinguishing media: Carbon dioxide, dry chemicals, foam, water spray (mist).



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- Unsuitable extinguishing media: DO NOT use water jet.

5.2 Special hazards arising from the substance or mixture

Releases hydrogen bromide, bromine and oxides of carbon.

5.3 Advice for fire fighters

Firefighters and others who may be exposed to products of combustion should wear full firefighting turnout gear and self-contained breathing apparatus (MSHA-NIOSH approved).

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing; provision of sufficient ventilation.

6.2 Environmental precautions

Do not allow to enter sewers / surface or ground water. Do not let this chemical enter the environment. Contain any spill with dikes or absorbents to prevent migration and entry into sewers or streams.

6.3 Methods and materials for containment and cleaning up

Stop the leak if possible. Ventilate area of spill. Take up small spills with dry chemical absorbent. Large spills may be taken up with pump or vacuum and finished off with dry chemical absorbent.

6.4 References to other sections

See sections 8 and 13 for further advice.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Local exhaust is needed at source of vapours. Mechanical ventilation is recommended. Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of material from eyes, skin, and clothing. Avoid release to the environment.

7.2 Conditions for safe storage, including any incompatibilities

Store in a well-ventilated area away from extreme heat and away from strong oxidizing agents.

Specific incompatibilities: No information available.

7.3 Specific end uses(s):

No information available.

SECTION 8. Exposure Controls/Personal Protection

8.1 Control parameters

DNEL/DMEL & PNEC Values

DNEL/DMEL Exposure Route	Units	Exposure Frequency	Industrial Worker	Professional Worker	General Population
Oral	mg/kg	Short-term	NA*	NA*	NA*
Oral	mg/kg bw/d	Long-term, repeated	NA*	NA*	NA*
Dermal	mg/kg	Short-term	1600	1600	NA*
Dermal	mg/kg bw/d	Long-term, repeated	89	89	NA*
Inhalation	mg/m ³	Short-term	NA*	NA*	NA*
Inhalation	mg/m ³	Long-term, repeated	47	47	NA*



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NA*: Not applicable as not classified, based on study.

NA**: Not applicable for the identified uses.

PNEC Exposure Route	Units	Environment
Fresh Water	mg/l	0.011
Marine Water	mg/l	ND
Intermittent Water	mg/l	0.009
Air	-	-
Sediment	mg/kg w	ND
Marine Sediment	mg/kg w	ND
Soil	mg/kg dw	ND
Sewage Treatment Plant	mg/l	ND

ND: Not derived

DN(M)EL : Derived Non(Minimum) Effect Level

PNEC : Predicted No Effect Level

Exposure limits: No data available

8.2 Exposure controls

Ventilation must be adequate to maintain the ambient workplace atmosphere.

8.2.1 Appropriate engineering controls:

Provide ventilation if necessary to minimize exposure. Ensure that eyewash station and safety shower is proximal to the work-station location. Establish a patent airway.

8.2.2 Personal protective measures:

Remove all contaminated clothing. Wash hands before breaks and at the end of work.

Respiratory protection

Approved organic vapour respirator.

Hand Protection

Wear suitable gloves resistant to chemical penetration. If gloves are damaged during use, remove immediately and wash hands before replacing with new gloves.

Eye and face protection

Safety goggles should be worn when handling this substance.

Skin protection

Wear protective gloves/clothing.

8.2.3 Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Form: Viscous liquid

Color: Amber

Odor: Mild

Odor threshold: Not known

pH: No data available

Melting point: No data available

Boiling point: No data available

Flashpoint (TCC): 105 °C (211 °F)

Evaporation rate: No data available



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Flammability: No data available
Vapor pressure: No data available
Vapor density: No data available
Specific Gravity: 1.8 at 20°C
Particle size distribution: Not applicable
Solubility in water: < 0.1 % (25°C) (0.057 mg/l (estimated))
Solubility in other solvents: soluble in Toluene, Dichloromethane, Methyl Ethyl Ketone
Surface tension: No data available
Partition coefficient: log Kow = 3.825(calculated)
Auto ignition temperature: No data available
Decomposition temperature: Not available
Viscosity: 1400-2100 cps (60°C)
Explosive properties: No data available
Oxidizing properties: No data available
Dissociation Constant: No data available
Molecular Weight: 627.5

9.2 Other information:
No data available

SECTION 10: Stability and Reactivity

10.1 Reactivity

Not a reactive substance and no reactive hazards are expected.
No hazardous reaction when handled and stored according to provisions.

10.2 Chemical stability

This material is stable if stored under proper conditions. (See Section 7 for instructions)

10.3 Others

Possibility of hazardous reactions:

No hazardous reactions expected under normal conditions of use.

Conditions to avoid:

Temperatures above 210°C.

Incompatible materials:

Incompatible with oxidizing agents.

Hazardous decomposition products:

Hydrobromic acid, bromine and oxides of carbon.

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

This substance is not classified as acute toxic for all exposure route listed below:

Acute Toxicity	Effect Dos /Concentration
Acute Oral Toxicity	LD50: >2000mg/kg bw (rat)
Acute dermal toxicity	LD50: >2000 mg/kg bw (Rabbit)
Acute inhalation toxicity	LD50: >Saturated vapour concentration (1hr, Rat)



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Skin corrosion/irritation: No skin irritation.

Serious eye damage/irritation: No eye irritation. (rabbit)

Respiratory/skin sensitisation: Not expected to be a sensitizer.

Germ cell mutagenicity: Not mutagenic in AMES Test.

Carcinogenicity: Not classified

Reproductive toxicity: Neither prenatal developmental toxicity nor effects on reproductive organs was seen.

Repeated dose toxicity: Information given is based on data obtained from similar substances.

Repeated dose (28 days) toxicity NOAEL (No Observed Adverse Effect Level):

Oral (Rat): 2000ppm; Dermal (rabbit): 500 mg/kg bw/d

Aspiration hazard: Not classified

Other Toxicological Information No information available

SECTION 12: Ecological Information

12.1. Toxicity

No data is available on the product itself. Information given is based on data obtained from similar substances.

LC50 LC50/96h/fish: 12mg/L > Solubility in water

EC50 EC50/48h/Daphnia: 10.8 mg/L (estimated by calculation) > Solubility in water

EC50 EC50/72h/algae: 0.9mg/L (estimated by calculation) > Solubility in water

12.2 Persistence and degradability

Not expected to be readily biodegradable.

12.3 Bioaccumulative potential

Not expected to be bioaccumulative: BCF, Fish: 39 (estimated), and log Pow = 3.825 (estimated)

12.4 Mobility in soil: No data available

12.5 Results of PBT and vPvB assessment

Not bioaccumulative and not regarded as a PBT / vPvB.

12.6 Other adverse effects: No information available.

SECTION 13: Disposal Considerations

Recycle to process, if possible. Consult your local or regional authorities for disposal options.

SECTION 14: Transport Information

DOT (US)	Not a controlled goods
IMDG	Not a controlled goods
IATA	

SECTION 15: Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This substance included on or exempted from listing on the following inventories:



Safety Data Sheet

Version: 3.0 / EN, 07/14/2016

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United States (TSCA), Canada (DSL), Australia (AICS), China (IECSC), Korea (ECI), Philippines (PICCS)
European Union (EINECS# 243-885-0),
REACH Registration number: 01-2119480176-36-0002

- 15.2 Chemical Safety Assessment:**
EU REACH Registration dossier.

SECTION 16: Other Information

16.1 Indication of changes

V1: This is the first SDS under OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))
29 January 2015

V2: Change ResNovae to PyroVex[®], 06 November, 2015

V3: Change ResNovae to PyroVex, replace ResNovae.com to Velsicol.com, and replace logo, 12 August, 2016

16.2 Key literature references and sources for data

Manufacture SDS

ECHA website: <http://echa.europa.eu/web/guest/home>

16.3 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS)(29 CFR 1910.1200(g)), Not a mixture.

16.4 Training advice: accordance with Hazard Communication Standard (HCS)(29 CFR 1910.1200(g))

16.5 Further information: Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.