



# PyroVex<sup>®</sup> B-109-52

## SECTION 1: Identification

### 1.1 Product identifier

Trade name: **PyroVex<sup>®</sup> B-109-52**

#### Chemical Name and Synonyms:

Carbonic dichloride, polymer with 4,4'-(1-methylethylidene) bis[2,6-dibromophenol], bis(2,4,6-tribromophenyl) ester; TBBPA carbonate oligomer; BC-52; 2,4,6-Tribromophenyl-terminated tetrabromobisphenol-A carbonate oligomer (RDT-7); Phenoxy-terminated carbonate oligomer of Tetrabromobisphenol A

**CAS-No.** : 94334-64-2

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

**1.2.1 Relevant identified uses:** Used as flame retardant for thermoplastic resin systems.

**1.2.2 Recommended restrictions on use:** Professional users only.

### 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](http://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)

No adverse health effects in human are known

### 2.2 Precautionary statements: Not available

### 2.3 Signal Word: None

### 2.4 Pictograms: None

### 2.5 Other hazards: No available

### 2.6 Additional Information: No available

## SECTION 3: Composition/information on ingredients:

### 3.1 Polymer:

Chemical Name	CAS number	% by Weight	% Bromine Content
Carbonic dichloride, polymer with 4,4'-(1-methylethylidene) bis[2,6-dibromophenol], bis(2,4,6-tribromophenyl) ester	94334-64-2	≥98	52



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- 3.2 Impurities and stabilizing additives**  
No information available

## SECTION 4: First-Aid Measures

### 4.1 Description of first aid measures

**4.1.1 General information:**

Inhalation and skin contact are expected to be the primary routes of occupational exposure.

**4.1.2 Following inhalation:**

Remove to under fresh air. If breathing is difficult, give artificial respiration. Get medical attention.

**4.1.3 Following skin contact:**

Wash skin with soap and plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse.

**4.1.4 Following eye contact:**

Flush with plenty of water for at least 15 minutes. Get medical attention.

**4.1.5 Following ingestion:**

Rinse mouth with water. Get medical attention.

**4.1.6 Self-protection of the first aider:**

See section 8

**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: Non-flammable.

Suitable extinguishing media: Use extinguishing media appropriate to surrounding fire conditions.

Unsuitable extinguishing media: Not applicable.

### 5.2 Special hazards arising from the substance or mixture

Carbon oxides and Hydrogen bromide gas. Exposure to decomposition products may be a hazard to health.

### 5.3 Advice for fire fighters

Fire-fighters should wear protective clothing and Self-Contained Breathing Apparatus (SCBA) with chemical resistant gloves. Firefighting equipment should be thoroughly decontaminated after use.

## SECTION 6: Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures



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Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent possible contamination of skin, eyes and personal clothing.  
Avoid dust formation. Avoid breathing dust.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not allow to enter drainage system.  
In case of spillage to water course or public sewers inform responsible authorities.

### 6.3 Methods and materials for containment clearing up

Stop the leak if possible. Pick up and arrange disposal without creating dust. Sweep up and shovel. Dispose of contents/container in accordance with local/regional/national/international regulation.

### 6.4 References to other sections

See sections 7, 8 and 13 for further advice.

## SECTION 7: Handling and Storage

### 7.1 Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practices. Wear suitable protective clothing, gloves and eye/face protection. Avoid contact with skin and eyes. Avoid formation of dust and aerosols.  
Provide appropriate exhaust ventilation at places where dust is formed.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in well-ventilated and dry area; Keep container tightly closed.

#### Specific incompatibilities

strong oxidizing agents and moisture.

### 7.3 Specific end uses(s)

Raw industrial material.

## SECTION 8. Exposure Controls/Personal Protection

### 8.1 Control parameters

No exposure limits have been established for this product. Occupational exposure to this product may occur through inhalation and dermal contact with this compound at workplaces where it is produced or used.

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls:

Provide ventilation if necessary to minimize exposure. If practical use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

#### 8.2.2 Personal protective measures:

Handle in accordance with good industrial hygiene and safety practice. Remove all contaminated clothing. Wash hands before breaks and at the end of work.

#### Respiratory protection

Dust respirator.

#### Body Protection

Splash goggles. Lab coat. Boots. Gloves.

#### Eye and face protection



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Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### 8.2.3 Environmental exposure controls:

Do not contaminate water. Do not flush into surface water or sanitary sewer system.

## SECTION 9: Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

**Appearance:** White powder

**Odor:** No distinctive odor.

**Odor threshold:** No information available.

**pH:** no data available

**Boiling point (average):** no data available

**Melting point/freezing point:** 180°C-210°C

**Flashpoint:** no data available

**Evaporation rate:** no data available

**Flammability (solid):** Not flammable

**Vapor pressure:** no data available

**Vapor density:** no data available

**Specific Gravity:** 2.2 g/cm<sup>3</sup>

**Bulk Loose Density @ 25 °C, g/ml:** 0.61

**Bulk Packed Density @ 25 °C, g/ml:** 1.00

**Solubility in water:** < 1 mg/ml

**Solubility in other solvents:** varies

**Surface tension:** no data available

**Partition coefficient:** no data available

**Auto ignition temperature:** no data available

**Decomposition temperature:** 5% Weight loss at 408°C

**Viscosity:** Not applicable

**Explosive properties:** no data available

**Oxidizing properties:** no data available

**Dissociation Constant:** no data available

**Molecular Weight:** 973.59

### 9.2 Other information:

No information available.

## SECTION 10: Stability and Reactivity

### 10.1 Reactivity

No hazardous reaction when handled and stored according to provisions.

### 10.2 Chemical stability

This substance is stable under recommended storage conditions.

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**10.3 Others**

**Possibility of hazardous reactions:**

No hazardous reactions expected under normal conditions of use.

**Conditions to avoid:**

No data available

**Incompatible materials:**

Strong oxidizing agents

**Hazardous decomposition products:**

Carbon oxides, Hydrogen bromide gas. In the event of fire: see section 5

## SECTION 11: Toxicological Information

**11.1 Information on toxicological effects**

Velsicol Chemical LLC has not conducted toxicity tests on this substance. However, toxicity data are available for this or similar substances.

**(a) 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: > 5.000 mg/kg (rat)
Acute dermal toxicity	LD50: > 2.000 mg/kg (rabbit)
Acute inhalative toxicity (dust/mist)	no data available

**(b) Skin corrosion/irritation**

no data available

**(b) Serious eye damage/irritation**

no data available

**(d) Respiratory/skin sensitisation**

no data available

**(e) Germ cell mutagenicity**

no data available

**(f) Carcinogenicity**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, ACGIH, NTP and OSHA.

**(g) Reproductive toxicity**

no data available

**(h) STOT-single exposure**

no data available

**(i) STOT-repeated exposure**

no data available

**(j) Aspiration hazard**



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no data available

**(k) Additional Information**

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## SECTION 12: Ecological Information

**12.1. Toxicity**

Velsicol Chemical LLC has not conducted toxicity tests on this substance. However, some data are available on the components of this material.

According to the data, it shows that it may contaminate on hydrophilic life-form, so it should not release into drainage system.

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

no data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

This substance is not considered to be persistent, bio-accumulative and toxic (PBT).

**12.6 Other adverse effects**

No data available

## SECTION 13: Disposal Considerations

Burn in a chemical incinerator equipped with an afterburner and scrubber. Recycle to process, if possible. Dispose of contents/container in accordance with local/regional/national/ international regulation.

## SECTION 14: Transport Information

Not dangerous goods

## 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:

United States - Inventory TSCA (Note(s): tXU)

Canada - Domestic Substances List (DSL)

Australia - Inventory of Chemical Substances (AICS, Note(s): aU)

China - Inventory of Existing Chemical Substances (IECSC)

Korea - Existing and Evaluated Chemical Substances (KECL) (KE-04738)

New Zealand - Inventory of Chemicals (Note(s): nzi1)

Philippines - Inventory of Chemicals and Chemical Substances (PICCS)

**SARA 302 Components**



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No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

## **SARA 313 Components**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

## **SARA 311/312 Hazards**

No SARA Hazards

## **California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## **15.2 Chemical Safety Assessment**

No information available.

## **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)) 27, February 2013

V2: Change PyroVex to ResNovae, 06 November, 2015

V3: Change ResNovae to PyroVex, replace ResNovae.com to Velsicol.com, and replace logo, 29 August, 2016

### **16.2 Key literature references and sources for data**

Hazardous Substances Databank  
Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)) and Appendix C, D  
Manufacture SDS.

### **16.3 Training advice:** accordance with Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

### **16.4 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.*