



PyroVex[®] B-107

Safety Data Sheet

Version: 3.0 / EN, 08/12/2016

SECTION 1: Identification

1.1 Product identifier

Trade name: **PyroVex[®] B-107**

Chemical Name and Synonyms:

1,2-Bis(2,3,4,5,6-pentabromophenyl)ethane; Benzene, 1,1'-(1,2-ethanediyl)bis[2,3,4,5,6-pentabromo-]; 1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]; Decabromodiphenyl Ethane; DBDPE

CAS-No. : 84852-53-9

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

1.2.1 Relevant identified uses: an additive flame retardant for elastomers, thermoplastic resins– such as polybutylene terephthalate (PBT), polypropylene (PP), low-density polyethylene (LDPE) – and thermosetting resins– such as unsaturated polyesters and epoxy resins. It is also an excellent flame retardant for coatings and adhesive 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

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)

Hazard classification	Hazard statement(s)
Not classified	None

2.2 Precautionary statements

Collect spillage.

Dispose of contents/container in accordance with local/regional/national/international regulation

Keep container tightly closed.

Avoid release to the environment.

2.3 Signal Word: None

2.4 Pictograms: None

2.5 Other hazards: No available

2.6 Additional Information: No available



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SECTION 3: Composition/information on ingredients:

3.1 Substance:

Chemical Name	Common name and synonyms	CAS number	% by Weight
1,2-Bis(2,3,4,5,6-pentabromophenyl)ethane	Decabromodiphenyl Ethane; DBDPE	84852-53-9	>97

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 victim to fresh air and keep at rest in a position comfortable for breathing. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek 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:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

4.1.5 Following ingestion:

Get medical attention immediately. INDUCE VOMITING by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. Loosen tight clothing such as a collar, tie, belt or waistband. Rinse mouth. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

4.1.6 Self-protection of the first aider:

Wear protective gloves/protective clothing/eye protection/face protection. Do not get in eyes, on skin, or on clothing. Contaminated work clothing should not be allowed out of the workplace.

4.1.7 Notes for the doctor:

Not available.

4.2 Most important symptoms and effects, both acute and delayed

See the labelling (see section 2) and/or in section 11

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 water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: Not applicable.



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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

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 drains, sewers, surface or ground water. In case of spillage to water course or public sewers inform responsible authorities. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Stop the leak if possible. Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

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. Avoid release to the environment.

7.2 Conditions for safe storage, including any incompatibilities

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

Specific incompatibilities

No known.

7.3 Specific end uses(s)

Raw industrial material.

SECTION 8. Exposure Controls/Personal Protection

8.1 Control parameters

Occupational exposure may occur through inhalation and dermal contact
Threshold Limit Values (TLV): 2.0 mg/m³, 8 hours (US)

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.



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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

Wear, at a minimum, a NIOSH- approved Category 21C air-purifying respirator equipped with a tight-fitting face piece and high efficiency particulate filters.

Body Protection

Protective clothing, including gloves to provide an impervious barrier to prevent dermal exposure to the dust of this substance.

Eye and face protection

Safety glasses with side-shields for eye protection

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:

Discharge into the environment must be avoided.

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 (average): 345 °C

Flashpoint: 346.6°C

Evaporation rate: No information available.

Flammability (solid): Not flammable

Vapor pressure: no data available

Vapor density: no data available

Specific Gravity: 3.2 g/cm³ at 25°C

Solubility in water: almost insoluble in water.

Solubility in other solvents: slightly soluble in alcohol, ether

Surface tension: no data available

Partition coefficient: 3.55 log Pow at 25°C

Auto ignition temperature: no data available

Decomposition temperature: no data available

Viscosity: Not applicable

Explosive properties: no data available

Oxidizing properties: no data available

Dissociation Constant: no data available

Molecular Weight: 971.23

9.2 Other information:



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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.

10.3 Others

Possibility of hazardous reactions:

No hazardous reactions expected under normal conditions of use.

Conditions to avoid:

No data available

Incompatible materials:

Reactive with oxidizing agents, moisture.

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 in the rat was > 5000 mg/kg
Acute dermal toxicity	LD50 was greater than 2000 mg/kg bw.
Acute inhalative toxicity (dust/mist)	no data available

(b) Skin corrosion/irritation

The material is not a skin irritant.

(b) Serious eye damage/irritation

The test article was not an eye irritant.

(d) Respiratory/skin sensitisation

DBDPE is not sensitising to skin.

(e) Germ cell mutagenicity

DBDPE is not classified as a carcinogen or mutagen or toxic for reproduction.

(f) Carcinogenicity

DBDPE is not classified as a carcinogen or mutagen or toxic for reproduction.

(g) Reproductive toxicity

DBDPE is not classified as a carcinogen or mutagen or toxic for reproduction.



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- (h) **STOT-single exposure**
no data available
- (i) **STOT-repeated exposure**
The 28-d NOEL was \geq 1250 mg/kgd, the highest dose tested.
No adverse effects were seen in rats treated orally at doses up to 1,250 mg/kg/day for 28 days.
- (j) **Aspiration hazard**
no data available
- (k) **Additional Information**

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.

Chronic (long-term) toxicity: may cause long lasting harmful effects to aquatic life

12.2 Persistence and degradability

Biodegradation testing to date indicates DBDPE is not readily biodegradable over 28 d (METI test), does not undergo aerobic degradation by a mixture of soil/sludge over 90 d or anaerobic biodegradation by digester sludge over 60 days. DBDPE is not expected to undergo abiotic degradation.

It is a very persistence (vP)

12.3 Bioaccumulative potential

Not B and not vB based on: $\text{Log Kow} \leq 4.5$. Not B and not vB based on: $\text{BCF} \leq 2,000 \text{ L/kg}$

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance is considered to be persistent, non-bio-accumulating and non-toxic (PBT) substance.

12.6 Other adverse effects

No tests provide information relevant to DBDPE's environmental fate.

SECTION 13: Disposal Considerations

Recycle to process, if possible. Dispose of contents/container in accordance with local/regional/national/international regulation.

SECTION 14: Transport Information

DOT (US)

Not dangerous goods

ADR, IATA, RID and IMDG:

Not regulated



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SECTION 15: Regulatory Information

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

This product is listed in the following Inventories:

United States –TSCA, Note(s): E,P,S:

E –this substance is the subject of a Section 5(e) Consent Order under TSCA.

P –this is a commenced PMN substance.

S –this is a substance that is identified in a proposed or final Significant New Uses Rule.

European Inventory of Existing Commercial Chemical (EINECS # 284-366-9, This substance is not listed in the Annex I of Regulation (EC) No 689/2008). It is REACH registered.

China - Inventory of Existing Chemical Substances (IECSC)

Japan - Existing and New Chemical Substances (ENCS) ((4)-1735)

Korea. Existing Chemicals Inventory (KECI) (97-3-898, Note(s): knon)

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

WHMIS (Canada) –Not controlled

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)) 06, May 2015

V2: Change PyroVex to ResNovae, 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

Hazardous Substances Databank (6099)

Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)) and Appendix C, D

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

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.