

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Name of Substance: Hexachlorocyclopentadiene

Index number (CLP Annex VI):	602-078-00-7
EC number:	201-029-3
EC name:	Hexachlorocyclopentadiene
CAS number	77-47-4
REACH Registration number	01-2120740268-53-0001

Other means of identification:

1,2,3,4,5,5-Hexachloro-1,3-cyclopentadiene; HCCP, HCCPD, Hex, PCL Hexachlorocyclopentadiene.

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

##### 1.2.1 Relevant identified uses

Agricultural industry: Intermediate for pesticides and fungicides.

Industrial applications: used as an intermediate in the manufacture of flame retardants such as Dechlorane Plus and chlorendic anhydride and/or chlorendic acid; and, to a lesser extent, an intermediate in the production of a specialty coating.

Uses considered in Exposure Scenarios, see:

EU RISK ASSESSMENT - HEXACHLOROCYCLOPENTADIENE [77-47-4], 2007.

##### 1.2.2 Uses advised against

Not available.

#### 1.3 Details of the supplier of the safety data sheet

Company name: Velsicol Chemical Ireland Ltd  
Charter House  
Street/POB-No.: 5 Pembroke Row  
Postal Code, city: Dublin 2  
Republic of Ireland  
WWW: [www.velsicol.com](http://www.velsicol.com)  
E-mail: [sfriedman@velsicol.com](mailto:sfriedman@velsicol.com)  
Telephone: 00353 1 477 3143  
Telefax: 00353 1 402 9587  
Dept. responsible for information: [sfriedman@velsicol.com](mailto:sfriedman@velsicol.com)

#### 1.4 Emergency telephone number

Telephone: +49 51 92 98970 (08:00– 17:00 CET) or  
CHEMTREC, Telephone: +1 703 527 3887 (24h; from USA: 1-800-424-9300)

### SECTION 2: Hazards Identification

#### 2.1 Classification of the substance or mixture

##### 2.1.1 Classification according to Regulation (EC) No 1272/2008 (CLP)

Acute Toxicity. 2*	H330	On basis of test data
Acute Toxicity. 3*	H311	On basis of test data
Acute Toxicity. 4*	H302	On basis of test data
Skin Corr. 1B	H314	On basis of test data
Aquatic Acute 1	H400	On basis of test data
Aquatic Chronic 1	H410	On basis of test data

\* Minimum classification. See section 11 for details.

#### 2.2 Label elements

Labeling according to Regulation (EC) No 1272/2008 [CLP/GHS]

Hazard pictograms:



Skull and Crossbones



Environment



Corrosion

**Signal word: Danger**

**Hazard statements:**

H330: Fatal if inhaled  
H311: Toxic in contact with skin.  
H302: Harmful if swallowed.  
H314: Causes severe skin burns and eye damage  
H400: Very toxic to aquatic life.  
H410: Very toxic to aquatic life with long lasting effects

**Precautionary statements:**

P260: Do not breathe dust/fume/gas/mist/vapours/spray.  
P312: Call a POISON CENTER or doctor/physician if you feel unwell.  
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P302+P352: IF ON SKIN: Wash with plenty of soap and water.  
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**2.3 Other hazards**

None known

### SECTION 3: Composition/information on ingredients:

**3.1 Substances**

Index- number	Chemical name	% by Weight	EC Number
602-078-00-7	Hexachlorocyclopentadiene	≥ 98.5	201-029-3

**Specific Concentration limits, M-Factors, Acute Toxicity Estimates (ATE)**

Not available

**3.2 Mixtures**

Not applicable

### SECTION 4: First aid measures

**4.1 Description of first aid measures**

**4.1.1 General information:**

May be fatal if inhaled. Harmful if swallowed or absorbed through skin. Corrosive to eyes and skin. Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. May cause allergic skin reaction in susceptible individuals.

**4.1.2 Following inhalation:**

POISON. Get medical attention. Call a Poison Control Centre. Remove to fresh air. If breathing is difficult, give artificial respiration. If breathing is difficult, give oxygen.

**4.1.3 Following skin contact:**

Immediately flush with plenty of water for 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes.

**4.1.4 Following eye contact:**

Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek medical attention immediately.

**4.1.5 Following ingestion:**

DO NOT induce vomiting. Have conscious person drink several glasses of water or milk. Seek immediate medical attention. 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. Get medical attention immediately.

**4.1.7 Notes for the doctor:**

Not available.

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

Highly toxic, may be fatal if inhaled, swallowed or absorbed through skin. Avoid any skin contact. Effects of contact or inhalation may be delayed. This substance may be harmful to the kidney, lungs, nervous system and liver based on animal data. Repeated or prolonged contact with spray mist may produce chronic eye irritation, severe skin irritation and respiratory tract irritation leading to frequent attacks of bronchial infection

**4.3 Indication of any immediate medical attention and special treatments needed**

Seek medical attention immediately.

### SECTION 5: Firefighting measures

**5.1 Extinguishing media**

Suitable extinguishing media: Small fires: Dry chemical, CO<sub>2</sub> or water spray. Large fires: Water spray, fog or regular foam.

Unsuitable extinguishing media: do not use straight streams

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

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. Fire may produce irritating, corrosive and/or toxic gases. Containers may explode when heated. Toxic hydrogen chloride, chlorine, & phosgene gases may form in fires. Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution.

**5.3 Advice for fire fighters**

Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Structural fire fighter's protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

Move containers from fire area if you can do it without risk. Dike fire control water for later disposal; do not scatter the material.

Fire involving tanks or car/trailer loads: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Do not get water inside containers. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

### SECTION 6: Accidental Release Measures

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

Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Cover with plastic sheet to prevent spreading. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. DO NOT GET WATER INSIDE CONTAINERS.

**6.1.1 For non-emergency personnel**

Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing to prevent any contact of skin, eyes and personal clothing; evacuate the danger area or to consult an expert.

**6.1.2 For emergency personnel**

Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing to prevent any contact of skin, eyes and personal clothing.

### 6.2 Environmental precautions

Do not allow to enter sewers and surface or ground water.  
In case of spillage to water course or public sewers inform responsible authorities.

### 6.3 Methods and materials for containment and clearing up

**Small Spill:** Absorb with an inert material and put the spilled material in an appropriate waste disposal container.

**Large Spill:** Stop the leak if without risk. Absorb with DRY earth, sand or other non-combustible material. DO NOT touch spilled material. DO NOT get water in containers. Use water spray curtain to divert vapour drift. Use water spray to reduce vapours. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

### 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

#### 7.1.1 Recommendations for safe handling

Do not handle until all safety precautions have been read and understood; Wear suitable protective clothing, gloves and eye/face protection.

**Measures to prevent aerosol and dust generation:** Provide ventilation to minimize exposure. Do not breathe dust/fumes/gas/mist/vapours/spray;

**Measures to protect the environment:** Avoid release to the environment.

#### 7.1.2 Advice on general occupational hygiene

Do not get in eyes, on skin, or on clothing; Do not eat, drink and smoke in work areas; Work clothing that becomes wet or contaminated should be removed and replaced.

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

Store in well ventilated area away from sources of heat and sunlight; Keep container tightly closed;  
Specific incompatibilities: Keep away from moisture/water and sunlight.

### 7.3 Specific end uses(s)

Ref: EU RISK ASSESSMENT - HEXACHLOROCYCLOPENTADIENE [77-47-4], 2007.

## SECTION 8. Exposure Controls/Personal Protection

### 8.1 Control parameters

#### 8.1.1 The national occupational exposure limit values

OELs – EU Occupational Exposure Limit values (TWA – value (8 hr)):

Country / Organisation	Level (mg/m <sup>3</sup> )
The Netherlands (Health Council of the Netherlands, 2003)	0.01
Denmark (Arbejdstilsynet, 2002)	0.1
Germany (TRGS, 2006), (Deutsche Forschungsgemeinschaft, 2005)	0.2
American Conference of Governmental Industrial Hygienists (ACGIH, 2001)	0.11
Occupational Safety and Health Administration, USA (OSHA, 1989)	0.11
National Institute for Occupational Safety and Health, USA (NIOSH, 2005)	0.11

### 8.1.2 Recommended monitoring procedures

Assuming a human body wt of 70 kg, the acceptable daily intake for Hexachlorocyclopentadiene is 0.00462 mg/day/Inhalation.

### 8.1.3 Air contaminants occupational exposure limit values

Acceptable Intake Chronic/Excursion Limit Recommendation: Threshold Limit Values (TLV) in worker exposure levels may exceed 3 times the TLV-TWA for no more than a total of 30 minutes during a work day, and under no circumstances should they exceed 5 times the TLV-TWA, provided that the TLV-TWA is not exceeded.

### 8.1.4 The relevant DNELs and PNECs

Not available

DN(M)EL: Derived No(Minimal) Effect Level; NOAEL(C): No-observed-adverse-effect level (concentration)

PNEC: Predicted No-Effect Concentration

AF: Assessment Factor

## 8.2 Exposure controls

Ref: EU RISK ASSESSMENT - HEXACHLOROCYCLOPENTADIENE [77-47-4], 2007.

### 8.2.1 Appropriate engineering controls:

Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance; this is irrespective of the recommendation involving the wearing of eye protection.

Local exhaust ventilation should be applied wherever there is an incidence of point source emissions or dispersion of regulated contaminants in the work area. Ventilation control of the contaminant as close to its point of generation is both the most economical and safest method to minimize personnel exposure to airborne contaminants.

### 8.2.2 Personal protective measures:

Avoid breathing vapours. Keep upwind. ... Avoid bodily contact with the material. ... Do not handle broken packages unless wearing appropriate personal protective equipment. Wash away any material which may have contacted the body with copious amounts of water or soap and water. If contact with the material anticipated, wear appropriate chemical protective clothing. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

#### Respiratory protection

Self-contained air-masks or full face canister gas masks of the acid gases and organic vapours type should be available at all times. Self-contained breathing apparatus face shield.

#### Hand Protection

Protective clothing, including rubber gloves & rubber shoes or boots. If gloves are damaged during use, remove immediately and wash hands before replacing with new gloves.

#### Eye and face protection

Self-contained air-masks or full face canister gas masks of the acid gases and organic vapours type.

#### Skin protection

Wear appropriate personal protective clothing to prevent skin contact. These should be changed after use or if contaminated.

### 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

Appearance:	Pale yellow liquid. (Dense, oily)
Odour:	Pungent (strong)
Odour threshold:	0.15 ppm
pH:	Not available
Freezing point:	10°C (50°F)

Boiling point:	239°C (462.2°F)
Flashpoint:	Not applicable
Evaporation rate:	Not available
Flammability:	Not flammable
Vapour pressure:	0.060 mm of Hg (@ 25°C)
Vapour density	9.42 (Air = 1)
Relative density	1.7019 (Water = 1)
Particle size distribution:	Not applicable
Solubility in water:	Very slightly soluble in cold water, hot water. 1.8 mg/l @ 22°C
Solubility in other solvents:	Soluble in all proportions in acetone, carbon tetrachloride, methanol and hexane.
Surface tension:	37.5 dynes/cm= 0.0375 N/m @ 20 °C
Partition coefficient:	log Kow= 5.04
Auto ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity	Not available
Explosive properties	Not considered to be explosive
Oxidising properties	In the presence of moisture, it will corrode iron & other metals.
Dissociation Constant:	Not available
Molecular Weight	272.77

### 9.2 Other information

Henry's Law constant=  $2.7 \times 10^{-2}$  atm-cu m/mol at °C

## SECTION 10: Stability and Reactivity

### 10.1 Reactivity

The product is stable. No hazardous reaction when handled and stored according to provisions.

### 10.2 Chemical stability

Reacts slowly with water to form hydrochloric acid.

### 10.3 Possibility of hazardous reactions

Will corrode iron & most metals in presence of moisture. Explosive hydrogen gas may collect in enclosed spaces in the presence of moisture.

### 10.4 Conditions to avoid

Avoid water, direct Sun light.

### 10.5 Incompatible materials

Slightly reactive to reactive with reducing agents, alkalis. Very slightly to slightly reactive with organic materials, moisture.

### 10.6 Hazardous decomposition products

When heated to decomposition it emits toxic fumes of hydrogen chloride.

## SECTION 11: Toxicological Information

### 11.1 Information on toxicological effects

#### (a) Acute toxicity

##### Practical experience / human evidence:

not available

##### Animal data:

Acute Toxicity	Effect Dos /Concentration	Species
Acute Oral Toxicity	LD50: 630 mg/kg bw (male) LD50: 530 mg/kg bw (female) LD50: 584 mg/kg bw (male/female)	Rat
Acute dermal toxicity	LD50: 200 mg/kg bw	Rabbit
Acute inhalation toxicity	LC50: 0.041 mg/l, 4-hr	Rat

##### Classification (\* Minimum classification):

Inhalation: Acute Toxicity 2\*, H330: Fatal if inhaled.

Dermal: Acute Toxicity 3 \*, H311: Toxic in contact with skin.  
Oral: Acute Toxicity 4 \*, H302: Harmful if swallowed.

**(b) Skin corrosion/irritation**

**Classification:** Skin Corrosive 1B, H314: Causes severe **skin burns** and eye damage.

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

**Classification:** Skin Corrosive 1B, H314: Causes severe skin burns and **eye damage**.

**(d) Respiratory/skin sensitisation**

**Classification:** See Acute Toxicity.

**(e) Germ cell mutagenicity**

Based on the data available, it appears that HCCP is not a bacterial mutagen and does not induce gene mutations in mammalian cells *in vitro*. No genetic effects were observed in *in vivo* studies.

**Classification:** Not classified.

**(f) Carcinogenicity**

Based on the results in genotoxicity tests, the carcinogenicity tests with rats and mice, and the available epidemiological studies it is concluded that HCCP is of no concern with respect to carcinogenic activity.

**Classification:** Not classified.

**(g) Reproductive toxicity**

**Adverse effects on sexual function and fertility:**

Inhalation: NOAEC = 6.34 mg/m<sup>3</sup> for rats and mice.

Oral: NOAEL = 150 mg/kg bw for rats and 300 mg/kg bw for mice.

Dermal: No data are available.

**Adverse effects on developmental toxicity:**

Inhalation: No data are available.

Oral: NOAEL for maternal and developmental toxicity is concluded to be 25 mg/kg bw/day (rabbits).

Dermal: No data are available

**Classification:** Not classified.

**(h) STOT-single exposure**

Not available.

**(i) STOT-repeated exposure**

**Practical experience / human evidence:**

not available

**Animal data:**

Toxicological endpoint	Inhalation (N(L)OAEC)	Oral (N(L)OAEL)
Repeated dose toxicity (local)	1.25 mg/m <sup>3</sup> (subacute NOAEC in rats) 0.45 mg/m <sup>3</sup> (semichronic NOAEC in mice) 0.11 mg/m <sup>3</sup> (chronic LOAEC in rats and mice)	10 mg/kg bw (semichronic NOAEL in rats)
Repeated dose toxicity (systemic)	1.25 mg/m <sup>3</sup> (subacute NOAEC in rats) 0.45 mg/m <sup>3</sup> (semichronic NOAEC in mice) 0.11 mg/m <sup>3</sup> (chronic NOAEC in mice)	10 mg/kg bw (semichronic NOAEL in rats)

**Repeated dose toxicity: dermal,** No suitable dermal repeated dose toxicity studies are available.

**Classification:** Not classified

**(j) Aspiration hazard**

Not available

**11.2 Information on other hazards**

No data available.

### SECTION 12: Ecological Information

#### 12.1. Toxicity

**Acute (short-term) toxicity: Highly toxic**

**Fish:** LC50 (96h) for freshwater fish: 0.13 mg/L (bluegill) to 0.18 mg/L (fathead minnow)

**Water flea (*Daphnia magna*):** EC50/LC50 (48h) for freshwater invertebrates: 0.039 mg/L

**Algae/aquatic plants (*Selenastrum capricornutum*):** LC50 (96h) for 0.19 mg/l

**Chronic (long-term) toxicity:** Not available

#### Predicted No Effect Concentration (PNEC)

Fresh water	Sediment (fresh water)	Soil (Terrestrial)	STP (sewage treatment plant)	Oral (mammals)
3.0 x 10 <sup>-5</sup> mg/l	2.81 µg/kg ww	2.26 µg/kg dw.	10 mg/l	0.74 mg/kg food

#### Classification:

Aquatic Acute 1, H400: Very toxic to aquatic life.

Aquatic Chronic 1, H410: Very toxic to aquatic life with long lasting effects.

#### 12.2 Persistence and degradability

On the basis of the available data on aquatic biodegradation, HCCP is considered to be inherently biodegradable, not fulfilling specific criteria. Half-life in water (photolysis) is 1.03 minutes.

#### 12.3 Bioaccumulative potential

Actual determinations indicate that HCCP does not seem to accumulate to a great extent mainly because it is metabolized rapidly. US-EPA concluded to use the bioconcentration factors (BCF) of <11 and adjusted it for lipid content. The weighted average BCF for the edible portion of freshwater and estuarine aquatic organisms was calculated and found to be 4.34 (Agency for Toxic Substances and Disease Registry (ATSDR), 1999).

#### 12.4 Mobility in soil

If released to soil, HCCP will be immobilized by strong adsorption to organic matter. Significant losses on soil surfaces may occur via photolysis. Volatilization from soil surfaces is expected to be of minor importance. In moist soil, HCCP will be subject to chemical hydrolysis (half-life 2.5 d at 22 °C) and biodegradation under aerobic and anaerobic conditions (HSDS 2001).

#### 12.5 Results of PBT and vPvB assessment

Overall, HCCP does not meet the PBT criteria.

#### 12.6 Other adverse effects

No information available.

#### 12.7 Additional information

No information available.

### SECTION 13: Disposal Considerations

#### 13.1. Waste treatment methods

Recommendable Treatment and Disposable Methods: Incineration. Incinerate after mixing with another combustible fuel. Care must be exercised to assure complete combustion to prevent the formation of phosgene. Consult your local or regional authorities for disposal options.

### SECTION 14: Transport Information

Transport	Proper Shipping Name	Hazard Class	UN ID#	Packing group	Required Label
ICAO/IATA (Air)	Hexachlorocyclopentadiene	6.1	UN2646	I	Forbidden by air (Passenger or Cargo)
IMO/IMDG (Sea)	Hexachlorocyclopentadiene	6.1	UN2646	I	Poison
TDG (Canada)	Hexachlorocyclopentadiene	6.1, 9.2	UN2646	I	

DOT (USA)	Hexachlorocyclopentadiene	6.1	UN2646	I	Inhalation Hazardous
ADR CLASS 6.1: Organic substance with a flash point of 23°C or over or non-flammable organic substances.					
STCC Number: 49 330 15; Hexachlorocyclopentadiene					
Customs Classification: International HTS# 2903.89.70					

### SECTION 15: Regulatory Information

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

##### 15.1.1 National regulations - EU

European Inventory of Existing Commercial chemical Substances (EINECS): listed  
Export and Import of Dangerous Chemicals (Regulation (EC) No 689/2008) Information: Not listed.

HPV-LPV (High and Low Production Volume) Information: LPV Chemical

##### National regulations (Germany)

Ordinance on Classification of Water-Endangering Substances. The substance has been assigned WGK Class: 3 (very water endangering) through "self-classification" by chemical companies pursuant to criteria of the Verband Chemischer Industrie (VCI).

##### 15.1.2 UK REACH Regulation:

The retained version of the EU REACH Regulation is referred to as the UK REACH Regulation.

**UK REACH registration number:** UK-01-3272090876-6-0001

##### 15.1.3 National regulations - USA

TSCA Inventory: listed, active

TSCA HPVC: not listed

NFPA Hazard Rating:

Health: 3 (Serious), Fire: 0 (Minimal), Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 3 (Serious) - Chronic effects, Flammability: 0 (Minimal), Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

#### 15.2 Chemical Safety Assessment

For this substance a chemical safety assessment has been carried out.

Exposure Scenario, please reference:

EU RISK ASSESSMENT - HEXACHLOROCYCLOPENTADIENE [77-47-4], 2007.

### SECTION 16: Other Information

#### 16.1 Indication of changes

Version 1, 5 June 2012 This is the first SDS to comply Commission Regulation (EU) No 453/2010

Version 2, 7 June 2017, re-formatted Header/Footer

Version 3, 12 June 2017, updated Section 12 for Half-life in water (photolysis) and soil (hydrolysis).

Version 4, 25 January 2019, update Melting/Freezing point in Section 9.

Version 5, 5/19/2022, review and minor changes on format.

Version 6: Revision according to COMMISSION REGULATION (EU) 2020/878, 2022-10-12

Version 7: Review and updated Section 2 and 16, 2023-02-28

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

- EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP), 2015/830 & 2020/878
- Hazard Communication Standard (HCS)(29 CFR 1910.1200(g)) and Appendix D
- Registry of Toxic Effects of Chemical Substances (RTECS)
- Hazardous Substance Data Bank (HSDB), National library of Medicine, #4011
- ICRMS European Database, Ariel Research Corporation
- ICRMS Inventories Database, Ariel Research Corporation
- EU RISK ASSESSMENT - HEXACHLOROCYCLOPENTADIENE [77-47-4], 2007

### 16.3 Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Not a mixture.

### 16.4 List of relevant hazard statements and/or precautionary statements which are not written out in full under Sections 2 to 15

#### Precautionary statements:

P260: Do not breathe dust/fume/gas/mist/vapours/spray.

P264: Wash ... thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P271: Use only outdoors or in a well-ventilated area.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P284: Wear respiratory protection.

P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P310: Immediately call a POISON CENTER or doctor/physician.

P320/321/322: Specific treatment is urgent (see ... on this label).

P361: Remove/Take off immediately all contaminated clothing.

P363: Wash contaminated clothing before reuse.

P391: Collect spillage.

P405: Store locked up.

P501: Dispose of contents/container in accordance with local/regional/national/international

### 16.5 Contact Information

SDS or Regulatory information, contact: Dawei Li Velsicol Chemical LLC 1199 Warford Street Memphis, TN 38108 Phone: 901-323-6226, ext. 124 Fax: 901-324-5897 dli@velsicol.com	Technical or Product Support Information, contact: Sherman Friedman Velsicol Chemical LLC 10400 W. Higgins Road Rosemont, IL 60018 U.S.A. Phone: 847-635-3486 Fax: 847-298-9018 Email: sfriedman@velsicol.com
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### 16.6 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.*