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1. Identification

1.1. Product identifier

Product Identity Quatricide® PV-15
Alternate Names Quatricide® PV-15

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

Intended useSee Technical Data Sheet.Application MethodSee Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name Pharmacal Research Labs., Inc.

562 Captain Neville Dr.

Waterbury, CT 06705, USA

Emergency

CHEMTREC (USA) (800) 424-9300 **IN CANADA CALL CANUTEC** (613) 996-6666

Customer Service: Pharmacal Research Labs., Inc. 203-755-4908, (800)-243-5350

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Acute Tox. 5;H303 May be harmful if swallowed. (Not adopted by US OSHA)

Skin Corr. 1B;H314 Causes severe skin burns and eye damage.

Eye Dam. 1;H318 Causes serious eye damage. Aquatic Acute 1;H400 Very toxic to aquatic life.

Aquatic Chronic 2;H411 Toxic to aquatic life with long lasting effects.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



Danger

H303 May be harmful if swallowed.

H314 Causes severe skin burns and eye damage.

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H318 Causes serious eye damage.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

[Prevention]:

P260 Do not breathe mist / vapors / spray.

P262 Do not get in eyes, on skin, or on clothing.

P264 Wash thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P301+310 IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.

P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.

P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P310 Immediately call a POISON CENTER or doctor / physician.

P331 Do NOT induce vomiting.

P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P363 Wash contaminated clothing before reuse.

P391 Collect spillage.

[Storage]:

P405 Store locked up.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
1-Decanaminium, N-decyl-N,N-dimethyl-, chloride CAS Number: 0007173-51-5	10 - 25	Acute Tox. 4;H302 Skin Corr. 1B;H314	[1]
Tetrasodium EDTA CAS Number: 0000064-02-8	1.0 - 10	Acute Tox. 4;H302 Eye Dam. 1;H318	[1]
Alkyl dimethyl benzyl ammonium chloride CAS Number: Proprietary	1.0 - 10	Flam. Liq. 3;H226 Acute Tox. 4;H302 Skin Corr. 1B;H314 Eye Dam. 1;H318 Aquatic Acute 1;H400 Aquatic Chronic 1;H410	[1]



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Ethanol CAS Number: 0000064-17-5	1.0 - 10	Flam. Liq. 2;H225	[1][2]
C9-C11 Synthetic Alcohol, Ethoxylated CAS Number: 0068439-46-3		Skin Irrit. 2;H315 Eye Dam. 1;H318	[1]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

4. First aid measures

4.1. Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention.

Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give

artificial respiration. If unconscious place in the recovery position and obtain immediate

medical attention. Give nothing by mouth.

Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and **Eves**

seek medical attention.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a

recognized skin cleanser.

Ingestion Call a poison control center or doctor immediately for treatment advice. Have person sip a

glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison

control center or doctor. Do not give anything by mouth to an unconscious person.

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

Overview

Skin: Causes corrosive burns. Brief exposures may cause irritation and defatting of the skin. Exposures not promptly washed off may lead to toxic effects similar to ingestion. Harmful if absorbed through the skin.

Eyes: Causes burns and may result in permanent injury to eyes including blindness.

Inhalation: Mists and vapors can irritate the throat and respiratory tract. High vapor concentrations may cause central nervous system effects. Symptoms may include headaches, dizziness, and drowsiness. Harmful if inhaled.

Ingestion: Ingestion can cause gastrointestinal irritation, swelling of the larynx, difficulty in breathing, circulatory shock, convulsions and possibly death.

Chronic: Ingestion of ethanol by pregnant women can cause reproductive toxicity to the fetus.

Probable mucosal damage may contraindicate the use of gastric layage. Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and

^[1] Substance classified with a health or environmental hazard.

^[2] Substance with a workplace exposure limit.

^[3] PBT-substance or vPvB-substance.
*The full texts of the phrases are shown in Section 16.



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central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage. See section 2 for further details.

Eyes Causes serious eye damage.

Skin Causes severe skin burns and eye damage.

Ingestion May be harmful if swallowed. (Not adopted by US OSHA)

5. Fire-fighting measures

5.1. Extinguishing media

Dry chemical, foam, carbon dioxide, water fog

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Carbon monoxide, carbon dioxide, hydrogen chloride vapors

Do not breathe mist / vapors / spray.

Do not get in eyes, on skin, or on clothing.

5.3. Advice for fire-fighters

Firefighters should wear full protective clothing including self-contained breathing apparatus. Cool fire exposed containers with spray. Irritating and toxic gases or fumes may be released during a fire. Combustion products are toxic.

ERG Guide No. 153

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Emergency Action: Isolate spill or leak area immediately. Keep unauthorized personnel away. Stay upwind. Keep out of low areas where vapors may accumulate. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area).

Spill Cleanup: Ventilate closed spaces before entering. All equipment used when handling the product must be grounded. Floor will be slippery. Do not touch or walk through spilled material. Stop leak if you can do it without risk...



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Prevent entry into waterways, sewers, basements or confined areas. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Large Spills: Dike far ahead of liquid spill for later disposal. Pump into containers for disposal.

7. Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Wash thoroughly after work using soap and water.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: Strong oxidizing agents (may result in fire), reducing agents

Keep the container tightly closed and in a cool, well-ventilated place. Keep from freezing. Do not handle or store near an open flame, heat or other sources of ignition. Prevent electrostatic charge buildup by using common bonding and grounding techniques.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0000064-02-8	Tetrasodium EDTA	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0000064-17-5 Et	Ethanol	OSHA	TWA 1000 ppm (1900 mg/m3)
		ACGIH	STEL: 1000 ppm Revised 2009,
		NIOSH	TWA 1000 ppm (1900 mg/m3)
		Supplier	No Established Limit
0007173-51-5	1-Decanaminium, N-decyl-N,N-dimethyl-,	OSHA	No Established Limit
	chloride	ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit



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Proprietary	ietary Alkyl dimethyl benzyl ammonium chloride		No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0068439-46-3	C9-C11 Synthetic Alcohol, Ethoxylated	OSHA	No Established Limit
		ACGIH	No Established Limit
	NIOSH	No Established Limit	
		Supplier	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value					
0000064-02-8 T	Tetrasodium EDTA	OSHA	Select Carcinogen: No					
		NTP	Known: No; Suspected: No					
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;					
0000064-17-5	Ethanol	OSHA	Select Carcinogen: No					
		NTP	Known: No; Suspected: No					
		IARC	Group 1: Yes; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;					
0007173-51-5 1-Decanaminium, N-dimethyl-, chloride	1-Decanaminium, N-decyl-N,N-	OSHA	Select Carcinogen: No					
	dimethyl-, chloride	NTP	Known: No; Suspected: No					
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;					
Proprietary Alkyl dimethyl benzyl ammonium		OSHA	Select Carcinogen: No					
	chloride	NTP	Known: No; Suspected: No					
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;					
0068439-46-3	C9-C11 Synthetic Alcohol, Ethoxylated	OSHA	Select Carcinogen: No					
		NTP	Known: No; Suspected: No					
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;					

8.2. Exposure controls

Respiratory If exposure limits are exceeded or if irritation is experienced, a NIOSH/MSNA approved

respirator or an organic/vapor removing cartridge respirator protection device should be worn. Ventilation and other forms of engineering controls are often the preferred means for controlling chemical exposures. Respiratory protection may be needed for non-routine or

emergency situations.

Eyes Wear chemical goggles. Use a face shield if splashing is possible.

Skin Wear overalls to keep skin contact to a minimum. Natural rubber, neoprene, or nitrile

gloves is recommended.

Engineering Controls Provide adequate local exhaust ventilation (explosion proof) to maintain worker exposure

below exposure limits.

using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:



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9. Physical and chemical properties

Appearance Straw-colored Liquid

Odor Benzaldehyde

Odor threshold Not Measured

pH 7.31

Melting point / freezing pointNot MeasuredInitial boiling point and boiling rangeNot Measured

Flash Point None when heated to 105 C (TCC)

Evaporation rate (Ether = 1)

Not Measured
Flammability (solid, gas)

Not Applicable

Upper/lower flammability or explosive limits Lower Explosive Limit: Not Measured

Upper Explosive Limit: Not Measured

Vapor pressure (Pa)Not MeasuredVapor DensityEstimated to be heavier than air

Specific Gravity1.006 (8.35 lb/gal)Solubility in WaterNot Measured

Partition coefficient n-octanol/water (Log Kow)

Auto-ignition temperature

Not Measured

Not Measured

Not Measured

Decomposition temperatureNot MeasuredViscosity (cSt)13.61 mm2/s (cSt) at 22 C

VOC Content ~20

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Keep away from heat and strong oxidizing agents

10.5. Incompatible materials

Strong oxidizing agents (may result in fire), reducing agents



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10.6. Hazardous decomposition products

Carbon monoxide, carbon dioxide, hydrogen chloride vapors

11. Toxicological information

Acute toxicity

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
1-Decanaminium, N-decyl-N,N-dimethyl-, chloride - (7173-51-5)	No data available	No data available	No data available	No data available	No data available
Tetrasodium EDTA - (64-02-8)	1,000.00, Rat - Category: 4	No data available	No data available	No data available	No data available
Alkyl dimethyl benzyl ammonium chloride - (Proprietary)	344.00, Rat - Category: 4	645.00, Rabbit - Category: 3	No data available	No data available	No data available
Ethanol - (64-17-5)	7,060.00, Rat - Category: NA	20,000.00, Rabbit - Category: NA	124.70, Rat - Category: NA	No data available	No data available
C9-C11 Synthetic Alcohol, Ethoxylated - (68439-46-3)	5,100.00, Rat - Category: NA	No data available	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	5	May be harmful if swallowed. (Not adopted by US OSHA)
Acute toxicity (dermal)		Not Applicable
Acute toxicity (inhalation)		Not Applicable
Skin corrosion/irritation	1B	Causes severe skin burns and eye damage.
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization		Not Applicable
Skin sensitization		Not Applicable



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Germ cell mutagenicity	 Not Applicable
Carcinogenicity	 Not Applicable
Reproductive toxicity	 Not Applicable
STOT-single exposure	 Not Applicable
STOT-repeated exposure	 Not Applicable
Aspiration hazard	 Not Applicable

12. Ecological information

12.1. Toxicity

Very toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
1-Decanaminium, N-decyl-N,N-dimethyl-, chloride - (7173-51-5)	Not Available	Not Available	Not Available
Tetrasodium EDTA - (64-02-8)	486.00, Lepomis macrochirus	610.00, Daphnia magna	100.00 (72 hr), Scenedesmus subspicatus
Alkyl dimethyl benzyl ammonium chloride - (Proprietary)	0.28, Pimephales promelas	Not Available	0.04 (72 hr), Algae
Ethanol - (64-17-5)	42.00, Oncorhynchus mykiss	2.00, Daphnia magna	17.921 (96 hr), Ulva pertusa
C9-C11 Synthetic Alcohol, Ethoxylated - (68439-46-3)	8.50, Pimephales promelas	2.686, Daphnia magna	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.



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13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	UN1903	UN1903	UN1903
14.2. UN proper shipping name	Disinfectants, liquid, corrosive n.o.s., (Quarternary Ammonium Compound)	Disinfectants, liquid, corrosive n.o.s., (Quarternary Ammonium Compound)	Disinfectants, liquid, corrosive n.o.s., (Quarternary Ammonium Compound)
14.3. Transport hazard class(es)	DOT Hazard Class: 8	IMDG: Not Applicable Sub Class: Not Applicable	Air Class: Not Applicable
14.4. Packing group	III	III	III

14.5. Environmental hazards

IMDG Marine Pollutant: Yes (1-Decanaminium, N-decyl-N,N-dimethyl-, chloride)

14.6. Special precautions for user

No further information

15. Regulatory information

Regulatory Overview

FIFRA

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

DANGER

Corrosive.

Causes irreversible eye damage and skin burns.

Harmful if swallowed, inhaled or absorbed through the skin. Avoid breathing spray mist. Do not get in eyes, on skin, or on clothing.



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ENVIRONMENTAL HAZARDS: This pesticide is toxic to fish, aquatic invertebrates, oysters, and shrimp.

PHYSICAL OR CHEMICAL HAZARDS: Do not mix with oxidizers, anionic soaps and detergents. Do not use or store near heat or open flame.

Toxic Substance Control Act (TSCA)

WHMIS Classification

US EPA Tier II Hazards

Fire: No

Sudden Release of Pressure: No.

Reactive: No

Immediate (Acute): Yes Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Ethanol

Pennsylvania RTK Substances (>1%):

Ethanol

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H225 Highly flammable liquid and vapor.

H226 Flammable liquid and vapor.

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H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H350i May cause cancer if inhaled.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

The information and recommendations contained herein are, to the best of Pharmacal's knowledge and belief, accurate and reliable as of the date issued. Pharmacal does not warrant or guarantee their accuracy or reliability, and Pharmacal shall not be liable for any loss or damage arising out of there use thereof.

The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use.

The hazardous materials identification system (HMIS) and national fire protection association ratings have been included by Pharmacal research laboratories INC. In order to provide additional health and hazard information. The ratings recommended are based upon criteria supplied by the developers of these rating systems, together with Pharmacal's interpretation of the available data.

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