

SAFETY DATA SHEET

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade Name: **QUATRICIDE PV** Second Generation

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

Uses of the Substance/Mixture: EPA Registration Number: 10324-154-8714
Disinfectant. This product is intended to be diluted prior to use. For further information refer to the EPA Registered product label. Uses other than those identified are not recommended.

Product dilution information: Disinfectant/Non-Food Contact Sanitizer: 2 ounce per gallon. Refer to EPA registered label for product dilution/application directions for use.

1.3 Details of the supplier of the safety data sheet

Company: Pharmacal Research Labs. Inc.
562 Captain Neville Dr
Waterbury, CT 06705
Phone: 800-243-5350
Email: qc@pharmacal.com

Prepared by: SDS Coordinator

Date prepared: 12/14/2018 Supersedes: 9/8/2016 Reason: Review and update

1.4 Emergency telephone

Emergency telephone number: 800-424-9300 (CHEMTREC)

2. Hazards identification

2.1 Emergency overview

Appearance: Clear solution with characteristic odor
Precautionary statements: Causes skin irritation and serious eye damage
Harmful if swallowed

GHS classification

Health

Serious eye damage/eye irritation	Category 1
Skin corrosion/irritation	Category 2
Acute toxicity (oral)	Category 4
Acute toxicity (dermal)	Category 4

Product at Use-Dilution

Serious eye damage/eye irritation Category 2B

2.2 GHS label elements, including precautionary statements



Hazard pictograms/symbols

Signal Word: DANGER!

Hazard Statements: H302: Harmful if swallowed
H312: Harmful in contact with skin
H315: Causes skin irritation
H318: Causes serious eye damage

Precautionary Statements:

Prevention

P262: Do not get in eyes, on skin, or on clothing
P264: Wash affected areas thoroughly after handling
P270: Do not eat, drink or smoke when using this product
P280: Wear protective gloves and eye, face and foot protection

Response

P301+312+330+331: IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell. Do NOT induce vomiting.
P303+P361+P353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with 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
P310: Immediately call a POISON CENTER or doctor/physician
P363: Wash contaminated clothing before reuse

Storage

P233: Keep container tightly closed
P234: Keep only in original container
P501: Dispose of contents and container to an approved waste disposal plant

Product at Use-Dilution	
Hazard pictograms/symbols	None
Signal Word:	Warning
Hazard Statements:	H320: Causes eye irritation
Precautionary Statements:	Prevention P264: Wash affected areas thoroughly after handling
	Response P305+P351+P338+P337+P313: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

- 2.3 Other hazards**
No information available

3. Composition/information on ingredients

3.1 Information on components and impurities

Chemical name	CAS number(s)	GHS Classification	Concentration, %
Alkyl (C ₁₂₋₁₆) dimethylbenzyl ammonium chloride	68424-85-1	Serious eye damage/eye irritation: Category 1, Skin corrosion/irritation: Category 1B, Acute toxicity (oral): Category 3, Acute toxicity (dermal): Category 3; H301, H315, H318	≥4.2-≤4.4
Didecyl dimethyl ammonium chloride	7173-51-5		
Tetrasodium EDTA	64-02-8	Serious eye damage/eye irritation: Category 2B, Acute toxicity (oral): Category 4; H302, H319	≥0.7-≤0.8
Alcohols, C9-11 ethoxylated	68439-46-3	Serious eye damage/eye irritation: Category 1, Acute toxicity (oral): Category 4; H302, H318	≥0.5-≤0.7
Other components		Not classified	Balance

Product at Use-Dilution

Within the present knowledge of the supplier, this product does not contain any hazardous ingredients in quantities requiring reporting, in accordance with local regulations.

4. First aid measures

4.1 Description of first-aid measures

- General advice: Show this material safety data sheet to medical personnel. Do not leave affected person unattended. Isolate exposed apparel for laundry before re-use.
- Eye contact: Rinse eyes with water. Remove any contact lenses, and continue flushing eyes with running water for at least 15 minutes. Hold eyelids apart to ensure rinsing of the entire surface of the eyes and lids with water. Seek medical attention if irritation develops or persists.
- Skin contact: Take off contaminated clothing and shoes immediately. Wash affected areas with plenty of water. Seek medical attention if irritation develops or persists.
- Ingestion: Do NOT induce vomiting. Do not give anything by mouth to an unconscious or convulsing person. Rinse mouth with water. Seek medical attention.
- If inhaled: Remove from area to fresh air. Seek medical attention if respiratory irritation develops or if breathing becomes difficult.

Product at Use-Dilution

- Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation persists.
- Skin contact: No known effect after skin contact. Rinse with water for a few minutes.
- Ingestion: Get medical attention if symptoms occur
- If inhaled: No special measures required. Treat symptomatically.

4.2 Most important symptoms and effects, both acute and delayed

- Risks: The most important known symptoms and effects are described in the labeling (section 2.2) and/or in section 11. Corrosive effects. Symptoms may include stinging, tearing, redness, swelling and blurred vision. Permanent eye damage including blindness could result. Prolonged or repeated skin contact may aggravate existing skin conditions. Inhalation of mists may aggravate existing chronic respiratory conditions such as asthma, emphysema or bronchitis.

4.3 Indication of any immediate medical attention and special treatment needed

- Note to physician: All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Treat symptomatically.

5. Firefighting measures

Flash Point and Method: None

5.1 Extinguishing media

Suitable extinguishing media: The product is not flammable.
Use media suitable for the material that is burning

Unsuitable extinguishing media: No data available

5.2 Special hazards arising from the substance or mixture

Special hazards during fire fighting: Container may rupture on heating

On combustion or on thermal decomposition: May include carbon oxides, nitrogen oxides

5.3 Advice for firefighters

Special protective equipment for firefighters: As in any fire, wear NIOSH/MSHA approved, pressure-demand self-contained breathing apparatus and full protective gear.

Specific firefighting methods: No special methods required. Move containers from area if it can be done without risk. Cool fire-exposed containers with water from side. Contain the extinguishing fluids by diking.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Spill area may be slippery. Wear appropriate protective equipment (See Section 8).

6.2 Environmental precautions

Avoid contact of spilled material and runoff with soil and surface waterways

6.3 Methods and material for containment and cleaning up

Recovery: Stop leak if safe to do so. Absorb spills with vermiculite, fuller's earth, or sand. Shovel up and place in a non-metal waste container for disposal. Dike large spills with soil or sandbags to contain it and prevent its spread. Keep in suitable, properly labeled, closed containers for disposal.

Decontamination/
cleaning: Wash non-recoverable remainder with large amounts of water. Clean contaminated surfaces thoroughly. Recover the cleaning water for subsequent disposal.

Disposal: Dispose of in accordance with local regulations

Additional advice: Spill area may be slippery

Product as Use-Dilution

Use a water rinse for final clean-up

6.4 Reference to other sections

No information available

7. Handling and storage

7.1 Precautions for safe handling

Technical measures: Does not require any specific or particular measures

Advice on safe handling and usage: Wear appropriate protective equipment including long chemical resistant gloves, chemical splash goggles and protective footwear. Handle in accordance with good industrial hygiene and safety practice. Do not spray toward face. Wash affected areas after use. Do not taste or swallow. Avoid breathing vapors or mists. Use only with adequate ventilation. Product residue may remain on/in empty containers. All precautions for handling the product must be used in handling the empty container and residue. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

Product at Use-Dilution

Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures for storage: Does not require any specific or particular measures

Storage class (TRGS 510): Non-combustible, corrosive materials

Storage conditions

Recommended: Keep container tightly closed. Opened containers must be carefully resealed and kept upright to prevent leakage.

Incompatible products: Hazardous reactions may occur on contact with certain chemicals. Refer to the list of incompatible materials section 10: "Incompatible materials"

Product at Use-Dilution

Keep out of reach of children. Keep container tightly closed.

7.3 Specific end use(s)

No information available

8. Exposure controls/personal protection

Introductory remarks:

These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13: Disposal considerations.

Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers

8.1 Control parameters

Components with workplace control parameters

Components	Value	Control parameters	Basis
Not reportable			

8.2 Exposure controls**Control measures**

Engineering measures: Good general ventilation should be sufficient to control airborne levels. Respiratory protection is not required if good ventilation is maintained.

Personal protective equipment

Respiratory protection: In operations where mists are generated, wear a NIOSH/MSHA approved respirator that has been selected by a technically qualified person for the specific work conditions.

Hand protection: Wear long chemical resistant gloves. Observe instructions regarding permeability and breakthrough time provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion and contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection: Wear chemical splash goggles.

Skin and body protection: Wear footwear protecting against chemicals, and impervious clothing. Choose body protection according to the amount and concentration of the substances in the workplace.

Hygiene measures: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material:
1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
3) Wash exposed skin promptly to remove accidental splashes or contact with material.

Protective measures: Ensure that eyewash stations and safety showers are close to the workstation location, and that emergency equipment is immediately accessible with instructions for use.
The protective equipment must be selected in accordance with current local standards and in following proper use instructions from the supplier of the protective equipment.
Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards, and/or risks that may occur during use.

Product at Use-Dilution

Respiratory protection: A respirator is not needed under normal and intended conditions of product use

Hand protection: No protective equipment is needed under normal use conditions

Eye protection: No protective equipment is needed under normal use conditions

Skin and body protection: No protective equipment is needed under normal use conditions

Hygiene measures: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material:
1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored
2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet
3) Wash exposed skin promptly to remove accidental splashes or contact with product

9. Physical and chemical properties

Physical and chemical properties listed represent typical properties and should not be considered product specifications. Refer to product Certificate of Analysis for Product Specifications or contact Mason Chemical Company for additional information.

9.1 Information on basic physical and chemical properties

Appearance: Yellow solution
Odor: Mild odor
Odor Threshold: No information available
pH: 6.5-10.5
Freezing point: No information available
Melting point/range: No information available

Boiling point/boiling range:	>100°C
Flash point:	Does not flash
Evaporation rate:	No information available
Flammability (solid, gas):	Not applicable
Flammability/Explosive limit:	No information available
Auto-ignition temperature:	No information available
Vapor pressure:	No information available
Vapor density:	No information available
Density:	1.00 g/ml, 8.3 lbs/gal (25°C)
Solubility:	Water solubility: soluble
Solubility in other solvents:	No information available
Partition coefficient: n-octanol/water:	No information available
Thermal decomposition:	No information available
Viscosity:	Low viscosity
Explosive properties:	No information available
Oxidizing properties:	No information available

Product at Use-Dilution

Appearance:	Clear Light Yellow Solution
Odor:	Characteristic odor
pH:	6-8
Flash point:	Does not flash

9.2 Other information
No information available

10. Stability and reactivity

10.1 Reactivity

No information available

10.2 Chemical stability

Stable and non-reactive under normal conditions of use, storage and transport

10.3 Possibility of hazardous reactions

No information available

10.4 Conditions to avoid

No information available

10.5 Incompatible materials

Anionic surfactants

10.6 Hazardous decomposition products

Oxides of carbon and nitrogen

11. Toxicological information

Product Summary:

Causes skin irritation and serious eye damage. Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly digestive tract. Vapors and spray mist may irritate throat and respiratory system and cause coughing.

No data available for the teratogenicity, mutagenicity, or reproductive toxicity of this product. No data available to designate the product as causing specific target organ toxicity through repeated exposure. No data available to designate product as an aspiration hazard.

Information on likely routes of exposure:

Eye contact	Corrosive. Causes serious eye damage. Symptoms may include pain, burning sensation, redness, watering, blurred vision or loss of vision.
Skin contact	Causes skin irritation. Symptoms may include swelling, redness and pain (which may be delayed).
Ingestion	Harmful if swallowed. Causes burns/serious damage to mouth, throat and stomach. Symptoms may include vomiting, nausea, and/or feeling of general unwellness.
Inhalation	May cause irritation and corrosive effects to nose, throat and respiratory tract. Symptoms may include coughing and difficulty breathing.
Sensitization	No known effects

Product at Use-dilution

Product Summary:

Causes eye irritation

No data available for the teratogenicity, mutagenicity, or reproductive toxicity of this product. No data available to designate the product as causing specific target organ toxicity through repeated exposure. No data available to designate product as an aspiration hazard.

Information on likely routes of exposure:

Eye contact	Causes eye irritation. Symptoms may include irritation, watering, redness
Skin contact	No known significant effects or critical hazards
Ingestion	No known significant effects or critical hazards
Inhalation	No known significant effects or critical hazards
Sensitization	No known effects

11.1 Information on toxicological effects

Acute toxicity

Acute oral:	LD ₅₀ >1000 mg/kg
Acute dermal:	LD ₅₀ >2000 mg/kg
Acute inhalation:	No information available
Acute toxicity (other):	No information available

Skin corrosion/irritation

Skin irritation: Causes skin irritation

Serious eye damage/eye irritation

Eye irritation: Corrosive. Causes serious eye damage.

Respiratory or skin sensitization

Sensitization: Not classified as sensitizing by skin contact

Product at Use-dilution

Acute toxicity

Acute oral:	LD ₅₀ >5000 mg/kg
Acute dermal:	LD ₅₀ >2000 mg/kg
Acute inhalation:	No information available
Acute toxicity (other):	No information available

Skin corrosion/irritation

Skin irritation: No known significant effects or critical hazards

Serious eye damage/eye irritation

Eye irritation: Causes eye irritation

Respiratory or skin sensitization

Sensitization: Not classified as sensitizing by skin contact

Mutagenicity

Genotoxicity in vitro: No information available

Genotoxicity in vivo: No information available

Carcinogenicity

Carcinogenicity: This product does not contain any ingredient designated as probable or suspected human carcinogens by IARC, ACGIH

Toxicity for reproduction and development

Toxicity to reproduction/fertility: No information available

Developmental toxicity/teratogenicity: No information available

Specific Target Organ Toxicity (STOT)

STOT-single exposure: No information available

STOT-repeated exposure: No information available

Aspiration toxicity

Aspiration toxicity: No information available

Other Hazards

No information available

12. Ecological information

12.1 Toxicity

Aquatic toxicity: Toxic to aquatic life

12.2 Persistence and degradability

Biodegradation: No information available

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water: No bioaccumulation is to be expected (log Pow<=4)

Bioconcentration factor (BCF): No information available

12.4 Mobility in soil

Known distribution to environmental compartments: No information available

12.5 Results of PBT and vPvB assessment

No information available

12.6 Other adverse effects

Environmental assessment: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this product.

13. Disposal considerations

13.1 Waste treatment methods

PESTICIDE DISPOSAL:

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental control agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

Product disposal:

Observe all applicable federal, state, and local regulations

Packaging:

Remove all residue when emptying

Product at Use-Dilution**Waste treatment methods**

PESTICIDE DISPOSAL:

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental control agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

Product disposal:

Diluted product can be flushed to sanitary sewer

Packaging:

Discard empty container in trash or offer for recycling

14. Transportation information

DOT Hazard Classification:

Not regulated

Product at Use-Dilution

DOT Hazard Classification:

Not applicable

15. Regulatory information

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

Notification status:

Not applicable

OSHA Hazard Communication Standard (26 CFR 1910.1200):

Hazardous

CERCLA (RQ)

Ingredient(s)	CAS#	Weight	CERCLA RQ	Section 302 TPQ
Not listed				

SARA/EPCRA Extremely Hazardous Substances (302/304)

Ingredient(s)	CAS#	Weight	RQ	TPQ
Not listed				

SARA Hazard Categories (311/312)

Fire	Reactive	Acute health hazard	Chronic health hazard
No	No	Yes	No

SARA Toxic Substances (313) The following components are subject to SARA Section 313 reporting requirements

Ingredient(s)	CAS#	Weight
Not listed		

CAA (311) Volatile Organic compounds

Ingredient(s)	CAS#	Weight
Not listed		

15.2 Other regulations

No information available

16. Other information

NFPA-Classification		HMIS-Classification	
Health	3 high	Health	3 high
Flammability	0 insignificant	Flammability	0 insignificant
Instability or Reactivity	0 insignificant	Reactivity	0 insignificant
		HMIS PPE	B
		B=Safety glasses, Gloves	

Product at Use-Dilution

NFPA-Classification		HMIS-Classification	
Health	1 slight	Health	1 slight
Flammability	0 insignificant	Flammability	0 insignificant
Instability or Reactivity	0 insignificant	Reactivity	0 insignificant
		HMIS PPE	

Key or legend to abbreviations and acronyms used in the safety data sheet

ACGIH: American Conference of Governmental Industrial Hygienists	NIOSH: National Institute for Occupational Safety and Health
HMIS: Hazardous Materials Identification System	NTP: National Toxicology Program
IARC: International Agency for Research on Cancer	OSHA: Occupational Safety and Health Administration
NFPA: National Fire Protection Association	

Disclaimer:

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 the 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. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

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.