



SECTION 1: Identification

1.1. Identification

Product form : Mixtures
Product name : Tanovea™-CA1 (rabacfosadine for injection)

1.2. Recommended use and restrictions on use

Recommended use : For intravenous use in dogs only
Restrictions on use : Veterinarian use only. Prescription use only.

1.3. Supplier

VetDC, Inc.
320 East Vine Dr. Suite 218
Fort Collins, CO 80524
T 877-468-3832
vet-dc.com

1.4. Emergency telephone number

Emergency number : 844-342-8129 (SafetyCall 24/7)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Germ cell mutagenicity, Category 2, H341 Suspected of causing genetic defects
Reproductive toxicity, Category 1B, H360 May damage fertility or the unborn child

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS08

Signal word (GHS-US) : Danger
Hazard statements (GHS-US) : H341 - Suspected of causing genetic defects
H360 - May damage fertility or the unborn child
Precautionary statements (GHS-US) : P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P280 - Wear eye protection, protective clothing, protective gloves
P308+P313 - If exposed or concerned: Get medical advice/attention
P405 - Store locked up
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

48% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
48% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
48% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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### 3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Rabacfosadine succinate	(CAS-No.) 1431856-99-3	40 - 50	Muta. 2, H341 Repr. 1B, H360
Citric acid	(CAS-No.) 77-92-9	1 - 5	Eye Irrit. 2A, H319

\*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of hazard classes and H-statements : see section 16

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
- First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Get immediate medical advice/attention.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

### 4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects : Suspected of causing genetic defects. May damage fertility or the unborn child.
- Symptoms/effects after skin contact : May cause slight irritation.
- Symptoms/effects after eye contact : May cause slight irritation.

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically and supportively.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Specific hazards arising from the chemical

- Fire hazard : No particular fire or explosion hazard.
- Reactivity : No dangerous reactions known.

### 5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

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

- General measures : Do not get in eyes, on skin, or on clothing. Use personal protective equipment as required.

#### 6.1.1. For non-emergency personnel

- Protective equipment : Refer to section 8.2.
- Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

- Protective equipment : Refer to section 8.2.
- Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters.

### 6.3. Methods and material for containment and cleaning up

- For containment : Avoid generating dust. Sweep or shovel into suitable containers.
- Methods for cleaning up : On land, sweep or shovel into suitable containers.

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### 6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Obtain special instructions before use. Use personal protective equipment as required. Do not handle until all safety precautions have been read and understood.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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

Storage conditions : Keep only in the original container.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

Storage temperature : 2 - 8 °C

Storage area : Store in a dark area. Store in a dry, cool area.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Rabacfosadine succinate (1431856-99-3)

Not applicable

#### Citric acid (77-92-9)

Not applicable

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure good ventilation of the work station.

Environmental exposure controls : Prevent leakage or spillage. Prevent contaminated water run-off.

### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Avoid all unnecessary exposure.

#### Hand protection:

Wear suitable gloves resistant to chemical penetration. PVC. Butyl rubber gloves. nitrile rubber gloves

#### Eye protection:

Chemical goggles or safety glasses

#### Skin and body protection:

Long sleeved protective clothing

#### Respiratory protection:

No respiratory protection needed under normal use conditions

#### Other information:

Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Lyophilized powder / cake.

Colour : white Off-white

Odour : odourless

Odour threshold : No data available

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pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reactions known.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Likely routes of exposure	: Skin and eye contact
Acute toxicity	: Not classified

#### Citric acid (77-92-9)

LD50 oral rat	11700 mg/kg
ATE US (oral)	11700.000 mg/kg
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Suspected of causing genetic defects.
Carcinogenicity	: Not classified
Reproductive toxicity	: May damage fertility or the unborn child.
Specific target organ toxicity (single exposure)	: Not classified

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### Rabacfosadine succinate (1431856-99-3)

LOAEL	>= 3 mg/kg bodyweight dog, intravenous; Gastrointestinal tract, lymphoid tissues, bone marrow, kidney, prostate, adrenal gland.
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Specific target organ toxicity (repeated exposure) : Not classified

### Rabacfosadine succinate (1431856-99-3)

LOAEL	>= 1 mg/kg bodyweight/day dog, intravenous; Gastrointestinal tract, lymphoid tissues, bone marrow, kidney, testes, salivary gland, pancreas
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Aspiration hazard : Not classified  
Symptoms/effects after skin contact : May cause slight irritation.  
Symptoms/effects after eye contact : May cause slight irritation.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Citric acid (77-92-9)

LC50 fish 1	1516 g/l <i>Lepomis macrochirus</i>
EC50 Daphnia 1	120

### 12.2. Persistence and degradability

#### Tanovea™-CA1 (rabacfosadine for injection)

Persistence and degradability : Not established.

#### Citric acid (77-92-9)

Chemical oxygen demand (COD)	0.728 g O <sub>2</sub> /g substance
Biodegradation	98 % after 48 hours

### 12.3. Bioaccumulative potential

#### Tanovea™-CA1 (rabacfosadine for injection)

Bioaccumulative potential : Not established.

#### Citric acid (77-92-9)

Log Pow	-1.72
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### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Not regulated.

### Transport by sea

Not regulated.

### Air transport

Not regulated.

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### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

#### Rabacfosadine succinate (1431856-99-3)

EPA TSCA Regulatory Flag

Exempt from TSCA : Pharmaceutical/drug substance

#### 15.2. International regulations

##### CANADA

#### Rabacfosadine succinate (1431856-99-3)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

##### EU-Regulations

No additional information available

##### National regulations

#### Citric acid (77-92-9)

Listed on the AICS (Australian Inventory of Chemical Substances)

#### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

### SECTION 16: Other information

#### Data sources

: ACGIH (American Conference of Government Industrial Hygienists).  
European Chemicals Agency (ECHA) C&L Inventory database. Accessed at <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>.  
Kristen Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.  
OSHA 29CFR 1910.1200 Hazard Communication Standard.  
National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition.

#### Other information

: None.

#### Full text of H-statements:

H319	Causes serious eye irritation
H341	Suspected of causing genetic defects
H360	May damage fertility or the unborn child

#### Abbreviations and acronyms:

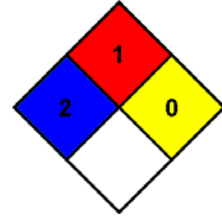
	ATE: Acute Toxicity Estimate
	CAS (Chemical Abstracts Service) number
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
LOAEL	Lowest Observed Adverse Effect Level
	OSHA: Occupational Safety & Health Administration
	TSCA: Toxic Substances Control Act

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NFPA health hazard	: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
NFPA fire hazard	: 1 - Materials that must be preheated before ignition can occur.
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and not reactive with water.



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*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*