

# SAFETY DATA SHEET



Revision date: 30-Jan-2014

Version: 2.0

Page 1 of 11

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

### Product Identifier

**Material Name:** Pet-Tinic®

**Trade Name:** Pet-Tinic®  
**Chemical Family:** Mixture

### Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

**Intended Use:** Veterinary product used as dietary supplement

### Details of the Supplier of the Safety Data Sheet

Zoetis Inc.  
100 Campus Drive, P.O. Box 651  
Florham Park, New Jersey 07932 (USA)  
Rocky Mountain Poison Control Center Phone: 1-866-531-8896  
Product Support/Technical Services Phone: 1-800-366-5288

Zoetis Belgium S.A.  
Mercuriusstraat 20  
1930 Zaventem  
Belgium

**Emergency telephone number:**  
**CHEMTREC (24 hours): 1-800-424-9300**  
**Contact E-Mail:** VMIPSrecords@zoetis.com

**Emergency telephone number:**  
**International CHEMTREC (24 hours): +1-703-527-3887**

## 2. HAZARDS IDENTIFICATION

**Appearance:** Dark brown liquid with an anise-licorice flavor

### Classification of the Substance or Mixture

**GHS - Classification** Not classified as hazardous

### EU Classification:

EU Indication of danger: Not classified

### Label Elements

**Signal Word:** Not Classified

**Hazard Statements:** Non-hazardous in accordance with international standards for workplace safety.

### Other Hazards

**Short Term:** May cause eye irritation (based on components) .

**Australian Hazard Classification (NOHSC):** Non-Hazardous Substance. Non-Dangerous Goods.

**Note:** This document has been prepared in accordance with standards for workplace safety, which require the inclusion of all known hazards of the product or its ingredients regardless of the potential risk. The precautionary statements and warnings included may not apply in all cases. Your needs may vary depending upon the potential for exposure in your workplace.

## SAFETY DATA SHEET

Material Name: Pet-Tinic®  
Revision date: 30-Jan-2014

Page 2 of 11  
Version: 2.0

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Hazardous**

Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	GHS Classification	%
Cyanocobalamin (Vitamin B12)	68-19-9	200-680-0	Not Listed	Not Listed	*
Riboflavin (Vitamin B2)	83-88-5	201-507-1	Not Listed	Not Listed	*
Pyridoxine Hydrochloride (Vitamin B6)	58-56-0	200-386-2	Not Listed	Not Listed	*
Sucrose	57-50-1	200-334-9	Not Listed	Not Listed	*
Glycerin, USP	56-81-5	200-289-5	Not Listed	Not Listed	*
Niacinamide	98-92-0	202-713-4	Not Listed	Not Listed	*
Citric acid	77-92-9	201-069-1	Xi; R36	Eye Irrit. 2 (H319)	<1.0
Cupric sulfate	7758-98-7	231-847-6	Xn; R22 Xi; R36/38 N; R50-53	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Aquatic Chronic 1 (H410) Aquatic Acute 1 (H400) Eye Irrit. 2 (H319)	<0.025
Sodium hydroxide	1310-73-2	215-185-5	C; R35	Skin Corr. 1A (H314)	<0.01

**Additional Information:**

\* Proprietary  
Ingredient(s) indicated as hazardous have been assessed under standards for workplace safety.

For the full text of the R phrases and CLP/GHS abbreviations mentioned in this Section, see Section 16

### 4. FIRST AID MEASURES

**Description of First Aid Measures**

**Eye Contact:** Flush with water while holding eyelids open for at least 15 minutes. Seek medical attention immediately.

**Skin Contact:** Remove contaminated clothing. Flush area with large amounts of water. Use soap. Seek medical attention.

**Ingestion:** Never give anything by mouth to an unconscious person. Wash out mouth with water. Do not induce vomiting unless directed by medical personnel. Seek medical attention immediately.

**Inhalation:** Remove to fresh air and keep patient at rest. Seek medical attention immediately.

**Most Important Symptoms and Effects, Both Acute and Delayed**

**Symptoms and Effects of Exposure:** No data available

**Medical Conditions Aggravated by Exposure:** None known

**Indication of the Immediate Medical Attention and Special Treatment Needed**

**Notes to Physician:** None

## SAFETY DATA SHEET

Material Name: Pet-Tinic®  
Revision date: 30-Jan-2014

Page 3 of 11  
Version: 2.0

### 5. FIRE-FIGHTING MEASURES

**Extinguishing Media:** Extinguish fires with CO<sub>2</sub>, extinguishing powder, foam, or water.

**Special Hazards Arising from the Substance or Mixture**

**Hazardous Combustion Products:** Formation of toxic gases is possible during heating or fire.

**Fire / Explosion Hazards:** Fine particles (such as dust and mists) may fuel fires/explosions.

**Advice for Fire-Fighters**

Wear approved positive pressure, self-contained breathing apparatus and full protective turn out gear. Dike and collect water used to fight fire.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment and Emergency Procedures**

Personnel involved in clean-up should wear appropriate personal protective equipment (see Section 8). Minimize exposure.

**Environmental Precautions**

Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release.

**Methods and Material for Containment and Cleaning Up**

**Measures for Cleaning / Collecting:** Use non-combustible absorbent material to wipe up spill and place in a sealed container for disposal. Clean spill area thoroughly. Prevent discharge to drains.

**Additional Consideration for Large Spills:** Non-essential personnel should be evacuated from affected area. Report emergency situations immediately. Clean up operations should only be undertaken by trained personnel.

### 7. HANDLING AND STORAGE

**Precautions for Safe Handling**

Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Releases to the environment should be avoided. Refer to Section 12 - Ecological Information, for information on potential effects on the environment. Keep away from heat, sparks, and flame.

**Conditions for Safe Storage, Including any Incompatibilities**

**Storage Conditions:** Store as directed by product packaging.

**Storage Temperature:** 15-30°C (59-86°F)

**Specific end use(s):** No data available

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Control Parameters**

Refer to available public information for specific member state Occupational Exposure Limits.

**Riboflavin (Vitamin B2)**

Latvia OEL - TWA 1 mg/m<sup>3</sup>

Lithuania OEL - TWA 1 mg/m<sup>3</sup>

**Sucrose**

ACGIH Threshold Limit Value (TWA) 10 mg/m<sup>3</sup>

Australia TWA 10 mg/m<sup>3</sup>

Belgium OEL - TWA 10 mg/m<sup>3</sup>

## SAFETY DATA SHEET

Material Name: Pet-Tinic®  
Revision date: 30-Jan-2014

Page 4 of 11  
Version: 2.0

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Bulgaria OEL - TWA	10.0 mg/m <sup>3</sup>
Estonia OEL - TWA	10 mg/m <sup>3</sup>
France OEL - TWA	10 mg/m <sup>3</sup>
Ireland OEL - TWAs	10 mg/m <sup>3</sup>
Latvia OEL - TWA	5 mg/m <sup>3</sup>
Lithuania OEL - TWA	10 mg/m <sup>3</sup>
OSHA - Final PELS - TWAs:	15 mg/m <sup>3</sup>
Portugal OEL - TWA	10 mg/m <sup>3</sup>
Slovakia OEL - TWA	6 mg/m <sup>3</sup>
Spain OEL - TWA	10 mg/m <sup>3</sup>
<b>Glycerin, USP</b>	
Australia TWA	10 mg/m <sup>3</sup>
Belgium OEL - TWA	10 mg/m <sup>3</sup>
Czech Republic OEL - TWA	10 mg/m <sup>3</sup>
Estonia OEL - TWA	10 mg/m <sup>3</sup>
Finland OEL - TWA	20 mg/m <sup>3</sup>
France OEL - TWA	10 mg/m <sup>3</sup>
Germany (DFG) - MAK	50 mg/m <sup>3</sup>
Greece OEL - TWA	10 mg/m <sup>3</sup>
Ireland OEL - TWAs	10 mg/m <sup>3</sup>
OSHA - Final PELS - TWAs:	15 mg/m <sup>3</sup>
Poland OEL - TWA	10 mg/m <sup>3</sup>
Portugal OEL - TWA	10 mg/m <sup>3</sup>
Spain OEL - TWA	10 mg/m <sup>3</sup>
Switzerland OEL - TWAs	50 mg/m <sup>3</sup>
<b>Niacinamide</b>	
Zoetis OEL TWA 8-hr	250 µg/m <sup>3</sup>
Latvia OEL - TWA	1 mg/m <sup>3</sup>
Lithuania OEL - TWA	1 mg/m <sup>3</sup>
<b>Cupric sulfate</b>	
ACGIH Threshold Limit Value (TWA)	1 mg/m <sup>3</sup>
Finland OEL - TWA	1 mg/m <sup>3</sup>
<b>Sodium hydroxide</b>	
ACGIH Ceiling Threshold Limit:	2 mg/m <sup>3</sup>
Australia PEAK	2 mg/m <sup>3</sup>
Austria OEL - MAKs	2 mg/m <sup>3</sup>
Bulgaria OEL - TWA	2.0 mg/m <sup>3</sup>
Czech Republic OEL - TWA	1 mg/m <sup>3</sup>
Estonia OEL - TWA	1 mg/m <sup>3</sup>
France OEL - TWA	2 mg/m <sup>3</sup>
Greece OEL - TWA	2 mg/m <sup>3</sup>
Hungary OEL - TWA	2 mg/m <sup>3</sup>
Japan - OELs - Ceilings	2 mg/m <sup>3</sup>
Latvia OEL - TWA	0.5 mg/m <sup>3</sup>
OSHA - Final PELS - TWAs:	2 mg/m <sup>3</sup>
Poland OEL - TWA	0.5 mg/m <sup>3</sup>
Slovakia OEL - TWA	2 mg/m <sup>3</sup>

## SAFETY DATA SHEET

Material Name: Pet-Tinic®  
Revision date: 30-Jan-2014

Page 5 of 11  
Version: 2.0

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Slovenia OEL - TWA	2 mg/m <sup>3</sup>
Sweden OEL - TWAs	1 mg/m <sup>3</sup>
Switzerland OEL -TWAs	2 mg/m <sup>3</sup>

The purpose of the Occupational Exposure Band (OEB) classification system is to separate substances into different Hazard categories when the available data are sufficient to do so, but inadequate to establish an Occupational Exposure Limit (OEL). The OEB given is based upon an analysis of all currently available data; as such, this value may be subject to revision when new information becomes available.

#### Riboflavin (Vitamin B2)

Zoetis OEB OEB 2 (control exposure to the range of 100ug/m<sup>3</sup> to < 1000ug/m<sup>3</sup>)

#### Pyridoxine Hydrochloride (Vitamin B6)

Zoetis OEB OEB 2 (control exposure to the range of 100ug/m<sup>3</sup> to < 1000ug/m<sup>3</sup>)

#### Exposure Controls

##### Engineering Controls:

Engineering controls should be used as the primary means to control exposures. General room ventilation is adequate unless the process generates dust, mist or fumes. Keep air contamination levels below the exposure limits or within the OEB range listed above in this section.

##### Personal Protective Equipment:

Refer to applicable national standards and regulations in the selection and use of personal protective equipment (PPE).

##### Hands:

Not required for the normal use of this product. Wear protective gloves when working with large quantities.

##### Eyes:

Wear safety glasses or goggles if eye contact is possible.

##### Skin:

Not required for the normal use of this product. Wear protective clothing when working with large quantities.

##### Respiratory protection:

If airborne exposures are within or exceed the Occupational Exposure Band (OEB) range, wear an appropriate respirator with a protection factor sufficient to control exposures to the bottom of the OEB range.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	Liquid	<b>Color:</b>	Dark brown
<b>Odor:</b>	No data available.	<b>Odor Threshold:</b>	No data available.
<b>Molecular Formula:</b>	Mixture	<b>Molecular Weight:</b>	Mixture
<b>Solvent Solubility:</b>	No data available		
<b>Water Solubility:</b>	No data available		
<b>Solubility:</b>	Soluble: Water (based on components)		
<b>pH:</b>	4.2 - 4.8		
<b>Melting/Freezing Point (°C):</b>	No data available		
<b>Boiling Point (°C):</b>	No data available.		
<b>Partition Coefficient: (Method, pH, Endpoint, Value)</b>			
No data available			
<b>Decomposition Temperature (°C):</b>	No data available.		
<b>Evaporation Rate (Gram/s):</b>	No data available		
<b>Vapor Pressure (kPa):</b>	No data available		
<b>Vapor Density (g/ml):</b>	No data available		
<b>Relative Density:</b>	No data available		
<b>Viscosity:</b>	No data available		

## SAFETY DATA SHEET

Material Name: Pet-Tinic®  
Revision date: 30-Jan-2014

Page 6 of 11  
Version: 2.0

### Flammability:

Autoignition Temperature (Solid) (°C):	No data available
Flammability (Solids):	No data available
Flash Point (Liquid) (°C):	Non-flammable based on major component
Upper Explosive Limits (Liquid) (% by Vol.):	No data available
Lower Explosive Limits (Liquid) (% by Vol.):	No data available

## 10. STABILITY AND REACTIVITY

Reactivity: No data available  
Chemical Stability: Stable under normal conditions of use.

### Possibility of Hazardous Reactions

Oxidizing Properties:	No data available
Conditions to Avoid:	Fine particles (such as dust and mists) may fuel fires/explosions.
Incompatible Materials:	As a precautionary measure, keep away from strong oxidizers
Hazardous Decomposition Products:	No data available

## 11. TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects

**General Information:** The information included in this section describes the potential hazards of the individual ingredients. Toxicological properties of the formulation have not been investigated.

### Acute Toxicity: (Species, Route, End Point, Dose)

#### Potassium sorbate

Mouse Oral LD50 3800 mg/kg  
Rat Oral LD50 4340 mg/kg

#### Glycerin, USP

Mouse Oral LD50 4090 mg/kg  
Rat Oral LD50 12.6 g/kg  
Rabbit Dermal LD50 > 10 g/kg  
Rat Inhalation LC50 1hr > 570 mg/m<sup>3</sup>  
Rat Dermal LD 50 > 21.9 g/kg

#### Sucrose

Rat Oral LD50 29.7 g/kg

#### Niacinamide

Rat Oral LD50 3500 mg/kg  
Mouse Oral LD50 2500mg/kg  
Rat Subcutaneous LD50 1680g/kg  
Mouse IP LD50 2050mg/kg  
Rabbit Dermal LD 50 >2000mg/kg

#### Cupric sulfate

Rat Oral LD50 300 mg/kg  
Rabbit Dermal LD 50 1000mg/kg

## SAFETY DATA SHEET

Material Name: Pet-Tinic®  
Revision date: 30-Jan-2014

Page 7 of 11  
Version: 2.0

### 11. TOXICOLOGICAL INFORMATION

#### Citric acid

Rat Oral LD50 3000 mg/kg

#### Sodium hydroxide

Mouse IP LD50 40 mg/kg

#### Pyridoxine Hydrochloride (Vitamin B6)

Rat Oral LD 50 4 g/kg

#### Irritation / Sensitization: (Study Type, Species, Severity)

##### Glycerin, USP

Eye Irritation Rabbit Mild

##### Citric acid

Eye Irritation Rabbit Severe

Skin Irritation Rabbit Mild

##### Sodium hydroxide

Eye Irritation Rabbit Severe

Skin Irritation Rabbit Severe

##### Sucrose

Bacterial Mutagenicity (Ames) *Salmonella* Negative

#### Carcinogen Status:

None of the components of this formulation are listed as a carcinogen by IARC, NTP or OSHA.

1.2

## SAFETY DATA SHEET

Material Name: Pet-Tinic®  
Revision date: 30-Jan-2014

Page 8 of 11  
Version: 2.0

### 12. ECOLOGICAL INFORMATION

**Environmental Overview:** The environmental characteristics of this mixture have not been fully evaluated. Releases to the environment should be avoided.

**Toxicity:**

**Aquatic Toxicity: (Species, Method, End Point, Duration, Result)**

**Glycerin, USP**

<i>Oncorhynchus mykiss</i> (Rainbow Trout)	LD50	96 Hours	50 mg/L
<i>Daphnia magna</i> (Water Flea)	EC50	24 Hours	>500 mg/L

**Cupric sulfate**

<i>Daphnia magna</i> (Water Flea)	EC50	48 Hours	0.024 mg/L
<i>Oncorhynchus mykiss</i> (Rainbow Trout)	LC50	96 Hours	0.1 mg/L

**Aquatic Toxicity Comments:** A greater than symbol (>) indicates that aquatic toxicity was not observed at the maximum dose tested.

**Persistence and Degradability:** No data available

**Bio-accumulative Potential:** No data available

**Mobility in Soil:** No data available

### 13. DISPOSAL CONSIDERATIONS

**Waste Treatment Methods:** Dispose of waste in accordance with all applicable laws and regulations. Member State specific and Community specific provisions must be considered. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater.

### 14. TRANSPORT INFORMATION

The following refers to all modes of transportation unless specified below.

Not regulated for transport under USDOT, EUADR, IATA, or IMDG regulations.

### 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture



## SAFETY DATA SHEET

Material Name: Pet-Tinic®  
Revision date: 30-Jan-2014

Page 9 of 11  
Version: 2.0

### 15. REGULATORY INFORMATION

#### Canada - WHMIS: Classifications

##### **WHMIS hazard class:**

None required

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

#### **Cyanocobalamin (Vitamin B12)**

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	200-680-0

#### **Riboflavin (Vitamin B2)**

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	201-507-1

#### **Pyridoxine Hydrochloride (Vitamin B6)**

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	200-386-2

#### **Sucrose**

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
REACH - Annex IV - Exemptions from the obligations of Register:	Present
EU EINECS/ELINCS List	200-334-9

#### **Glycerin, USP**

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present

## SAFETY DATA SHEET

Material Name: Pet-Tinic®  
Revision date: 30-Jan-2014

Page 10 of 11  
Version: 2.0

## 15. REGULATORY INFORMATION

**REACH - Annex V - Exemptions from the obligations of Register:**

Present if not chemically modified, except they meet the criteria for classification as dangerous according to Directive 67/548/EEC, except those only classified as flammable [R10], as a skin irritant [R38] or as an eye irritant [R36], except they are persistent, bioaccumulative, and toxic or very persistent and very bioaccumulative in accordance with the criteria set out in Annex XIII, except they were identified in accordance with Article 59[1] at least two years previously as substances giving rise to an equivalent level of concern

**EU EINECS/ELINCS List**

200-289-5

### Niacinamide

**CERCLA/SARA 313 Emission reporting**

Not Listed

**California Proposition 65**

Not Listed

**Inventory - United States TSCA - Sect. 8(b)**

Present

**Australia (AICS):**

Present

**EU EINECS/ELINCS List**

202-713-4

### Citric acid

**CERCLA/SARA 313 Emission reporting**

Not Listed

**California Proposition 65**

Not Listed

**Inventory - United States TSCA - Sect. 8(b)**

Present

**Australia (AICS):**

Present

**EU EINECS/ELINCS List**

201-069-1

### Cupric sulfate

**CERCLA/SARA 313 Emission reporting**

Not Listed

**CERCLA/SARA Hazardous Substances and their Reportable Quantities:**

10 lb

**California Proposition 65**

4.54 kg

Not Listed

**Inventory - United States TSCA - Sect. 8(b)**

Present

**Australia (AICS):**

Present

**Standard for the Uniform Scheduling for Drugs and Poisons:**

Schedule 6

**EU EINECS/ELINCS List**

231-847-6

### Sodium hydroxide

**CERCLA/SARA 313 Emission reporting**

Not Listed

**CERCLA/SARA Hazardous Substances and their Reportable Quantities:**

1000 lb

**California Proposition 65**

454 kg

Not Listed

**Inventory - United States TSCA - Sect. 8(b)**

Present

**Australia (AICS):**

Present

**Standard for the Uniform Scheduling for Drugs and Poisons:**

Schedule 5

Schedule 6

**EU EINECS/ELINCS List**

215-185-5

**REACH Authorizations:**

2.0

## 16. OTHER INFORMATION

Text of R phrases and GHS Classification abbreviations mentioned in Section 3

## SAFETY DATA SHEET

**Material Name:** Pet-Tinic®  
**Revision date:** 30-Jan-2014

**Page 11 of 11**  
**Version: 2.0**

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H302 - Harmful if swallowed  
H314 - Causes severe skin burns and eye damage  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H400 - Very toxic to aquatic life  
H410 - Very toxic to aquatic life with long lasting effects

Xn - Harmful  
Xi - Irritant  
N - Dangerous for the environment  
C - Corrosive

R22 - Harmful if swallowed.  
R35 - Causes severe burns.  
R36 - Irritating to eyes.  
R36/38 - Irritating to eyes and skin.  
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Data Sources:** The data contained in this MSDS may have been gathered from confidential internal sources, raw material suppliers, or from the published literature.

**Reasons for Revision:** Updated Section 1 - Identification of the Substance/Preparation and the Company/Undertaking. Updated Section 2 - Hazard Identification. Updated Section 3 - Composition / Information on Ingredients. Updated Section 5 - Fire Fighting Measures. Updated Section 7 - Handling and Storage. Updated Section 8 - Exposure Controls / Personal Protection. Updated Section 11 - Toxicology Information. Updated Section 15 - Regulatory Information.

**Prepared by:** Toxicology and Hazard Communication  
Zoetis Global Risk Management

Zoetis Inc. believes that the information contained in this Material Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. If data for a hazard are not included in this document there is no known information at this time.

**End of Safety Data Sheet**