

# SAFETY DATA SHEET



Revision date: 20-May-2015

Version: 2.0

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

### Product Identifier

**Material Name:** Zinc Sulfate

**Trade Name:** Not established

**Synonyms:** Zinc Sulfate 7-Hydrate ; Component of the OVASSAY PLUS diagnostic test kit

**Chemical Family:** Not determined

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

**Intended Use:** Veterinary product

### 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 and Drug 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:** Crystalline or granular solid

### Classification of the Substance or Mixture

#### GHS - Classification

Acute Oral Toxicity: Category 4  
Serious Eye Damage/Eye Irritation: Category 1  
Acute aquatic toxicity: Category 1  
Chronic aquatic toxicity: Category 1

#### US OSHA Specific - Classification

**Physical Hazard:** Combustible Dust

#### EU Classification:

EU Indication of danger: Xn - Harmful  
Xi - Irritant  
N - Dangerous for the environment

EU Symbol: Xn N  
R22 - Harmful if swallowed.  
R41 - Risk of serious damage to eyes.  
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### Label Elements

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### 2. HAZARDS IDENTIFICATION

**Signal Word:** Danger

**Hazard Statements:**  
H318 - Causes serious eye damage  
H302 - Harmful if swallowed  
H410 - Very toxic to aquatic life with long lasting effects  
May form combustible dust concentrations in air

**Precautionary Statements:**  
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P264 - Wash hands thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P273 - Avoid release to the environment  
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 CENTRE or doctor/physician  
P301+ P312 - IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell  
P330 - Rinse mouth  
P391 - Collect spillage  
P501 - Dispose of contents/container in accordance with all local and national regulations



#### Other Hazards

**Short Term:** May cause respiratory tract irritation. May cause skin irritation.  
**Australian Hazard Classification (NOHSC):** Hazardous Substance. Non-Dangerous Goods.

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

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Hazardous

Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	GHS Classification	%
Zinc Sulfate	7446-20-0	Not Listed	Xn; R22 Xi; R41 N; R50 R53	Acute Tox. 4 (H302) Aquatic Chronic 1 (H410) Aquatic Acute 1 (H400) Eye Dam. 1 (H318)	>98

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**Additional Information:** 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:** For information on potential signs and symptoms of exposure, See Section 2 - Hazards Identification and/or Section 11 - Toxicological Information.

**Medical Conditions Aggravated by Exposure:** Breathing dust may worsen asthma symptoms.

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

**Notes to Physician:** None

### 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:** Toxic or corrosive gases are expected in fires involving this mixture. Sulfur oxides, Borane/boron oxides, Zinc/zinc oxides; Reacts with water to form sulfuric acid.

**Fire / Explosion Hazards:** During processing, dust may form explosive mixture in air. Fine particles (such as dust and mists) may fuel fires/explosions.

#### Advice for Fire-Fighters

During all fire fighting activities, wear appropriate protective equipment, including self-contained breathing apparatus.

### 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. Avoid dust formation.

#### 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

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**Measures for Cleaning / Collecting:**

Collect spilled material by a method that controls dust generation. Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electricity), and follow appropriate grounding procedures. Use non-combustible absorbent material to wipe up spill and place in a sealed container for disposal. Clean spill area thoroughly.

**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. Avoid generating airborne dust. Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electricity), and follow appropriate grounding procedures. Collect spill with a non-combustible absorbent material and transfer to labeled container for disposal.

## 7. HANDLING AND STORAGE

**Precautions for Safe Handling**

Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electricity), and follow appropriate grounding and bonding procedures. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Minimize dust generation and accumulation. Use with adequate ventilation. When handling, use appropriate personal protective equipment (see Section 8). Wash thoroughly after handling. Releases to the environment should be avoided.

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

**Storage Conditions:**

Keep in a dry, cool and well-ventilated place. Keep container tightly closed when not in use. Keep away from moisture and sources of heat or ignition.

**Incompatible Materials:**

Strong oxidizing agents; moisture, Lead, calcium, strontium salts, borax, alkali carbonates and hydroxides, silver protein and tannins.

**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.

**Exposure Controls**

**Engineering Controls:**

Engineering controls should be used as the primary means to control exposures. Prevent dusting, and provide local ventilation when handling.

**Personal Protective Equipment:**

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

**Hands:**

Wear impervious gloves as minimum protection.

**Eyes:**

Wear safety goggles if eye contact is possible (face shield recommended if splashing is possible).

**Skin:**

Wear impervious protective clothing when handling this compound.

**Respiratory protection:**

Not required for the normal use of this product. Respiratory protection should be provided in instances where exposure to dust, mists, aerosols or vapors are likely.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:**

Crystalline or Granular solid

**Odor:**

Odorless

**Molecular Formula:**

Mixture

**Color:**

Colourless or White

**Odor Threshold:**

No data available.

**Molecular Weight:**

Mixture

**Solvent Solubility:**

No data available

**Water solubility:**

965 g/l at 20 °C (68 °F)

**Water Solubility:**

Soluble

**pH:**

4.0 - 6.0 at 50 g/l at 20 °C (68 °F)

**Melting/Freezing Point (°C):**

> 500 °C (> 932 °F)

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (°C): No data available.

Partition Coefficient: (Method, pH, Endpoint, Value)

Decomposition Temperature (°C): No data available.

Evaporation Rate (Gram/s): No data available

Vapor Pressure (kPa): No data available

Vapor Density (g/ml): No data available

Relative Density: 1.957 g/cm<sup>3</sup> at 20 °C (68 °F)

Viscosity: No data available

Flammability:

Autoignition Temperature (Solid) (°C): No data available

Flammability (Solids): No data available

Flash Point (Liquid) (°C): No data available

Upper Explosive Limits (Liquid) (% by Vol.): No data available

Lower Explosive Limits (Liquid) (% by Vol.): No data available

Polymerization: Will not occur

### 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: Exposure to moisture - reacts with water to form sulfuric acid. Keep away from heat, spark, flames and all other sources of ignition. Avoid dispersion as a dust cloud. Dust may form explosive mixture in air. Fine particles (such as dust and mists) may fuel fires/explosions.

Incompatible Materials: Strong oxidizing agents; moisture, Lead, calcium, strontium salts, borax, alkali carbonates and hydroxides, silver protein and tannins.

Hazardous Decomposition Products: Thermal decomposition products may include carbon monoxide, carbon dioxide and other toxic vapors. Zinc oxides, oxides of sulfur, borane/boron oxides

### 11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

General Information: Toxicological properties have not been thoroughly investigated. The information included in this section describes the potential hazards of the active ingredient. Routes of exposure: eye contact, skin contact, inhalation

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

**Zinc Sulfate**

Rat Oral LD50 1260 mg/kg

**Inhalation Acute Toxicity**

Zinc oxide dust or fume can irritate the respiratory tract. Exposure to high levels of dust or fume can cause metallic taste, marked thirst, coughing, fatigue, weakness, muscular pain, and nausea followed by fever and chills (metal fume fever). Severe overexposure may result in bronchitis or pneumonia with a bluish tint to the skin, burning sensation, cough, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting, airway resistance, cardiovascular effects, pulmonary edema, congestive heart failure

**Ingestion Acute Toxicity**

Harmful if swallowed. May hydrolyze into acid, severe irritation and burns of the mouth, throat and digestive system may occur.

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### 11. TOXICOLOGICAL INFORMATION

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

##### **Zinc Sulfate**

Eye Irritation Severe

**Irritation / Sensitization Comments:** May cause irreversible eye damage.  
**Skin Irritation / Sensitization** May cause skin irritation. Prolonged skin contact can produce a severe dermatitis called oxide pox.

**Carcinogen Status:** Not listed as a carcinogen by IARC, NTP or US OSHA.

### 12. ECOLOGICAL INFORMATION

**Environmental Overview:** Environmental properties have not been investigated. Releases to the environment should be avoided. May have toxic effects on the aquatic environment.

**Toxicity:** No data available

**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

As of January 1, 2015, materials offered for transport that are classified for transportation only as Marine Pollutants and which are packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 Liters or less for liquids or having a net mass per single or inner packaging of 5 kilograms or less for solids are NOT subject to ICAO/IATA, IMDG, or ADR transport regulations provided the general packaging requirements of those regulations are met. Refer to ICAO/IATA A197, IMDG 2.10.2.7, ADR SP 375.

**UN number:** UN 3077  
**UN proper shipping name:** Environmentally Hazardous Substance, Solid, n.o.s (Zinc sulfate)

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Transport hazard class(es): 9  
Packing group: III  
Environmental Hazard(s): Marine Pollutant

Please refer to the applicable dangerous goods regulations for additional information. Transport according to the requirements of the appropriate regulatory body.

DOT / ANTT: Not regulated for transportation

### 15. REGULATORY INFORMATION

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

##### Canada - WHMIS: Classifications

##### WHMIS hazard class:

Class D, Division 2, Subdivision B

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



#### Zinc Sulfate

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Australia (AICS):	Present
EU EINECS/ELINCS List	Not Listed

### 16. OTHER INFORMATION

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

Acute toxicity, oral-Cat.4; H302 - Harmful if swallowed  
Serious eye damage/eye irritation-Cat.1; H318 - Causes serious eye damage  
Hazardous to the aquatic environment, acute toxicity-Cat.1; H400 - Very toxic to aquatic life  
Hazardous to the aquatic environment, chronic toxicity-Cat.1; H410 - Very toxic to aquatic life with long lasting effects

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

R22 - Harmful if swallowed.  
R41 - Risk of serious damage to eyes.  
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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**Data Sources:**

The data contained in this SDS 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 6 - Accidental Release Measures. Updated Section 10 - Stability and Reactivity. Updated Section 2 - Hazard Identification. Updated Section 3 - Composition / Information on Ingredients. Updated Section 4 - First Aid Measures. Updated Section 5 - Fire Fighting Measures. Updated Section 7 - Handling and Storage. Updated Section 9 - Physical and Chemical Properties. Updated Section 11 - Toxicology Information. Updated Section 14 - Transport Information.

**Prepared by:**

Toxicology and Hazard Communication  
Zoetis Global Risk Management

Zoetis Inc. believes that the information contained in this 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**