

SAFETY DATA SHEET



Revision date: 26-May-2015

Version: 2.0

Page 1 of 9

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

Product Identifier

Material Name: CENTRON

Trade Name: CENTRON

Synonyms: Processing Aid for Cattle; Formerly AFTEC 3000

Chemical Family: Mixture

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

Intended Use: Veterinary product

Restrictions on Use: Not for human use

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: Liquid

Classification of the Substance or Mixture

GHS - Classification

Skin Corrosion/Irritation: Category 2

Serious Eye Damage/Eye Irritation: Category 2A

Substances/mixtures corrosive to metal- Category 1

EU Classification:

EU Indication of danger: Irritant

EU Symbol: Xi

EU Risk Phrases:
R36/38 - Irritating to eyes and skin.

Label Elements

Signal Word: Warning

Hazard Statements: H319 - Causes serious eye irritation

H315 - Causes skin irritation

H290 - May be corrosive to metals

SAFETY DATA SHEET

Material Name: CENTRON
Revision date: 26-May-2015

Page 2 of 9
Version: 2.0

Precautionary Statements:

- P280 - Wear protective gloves/protective clothing/eye protection/face protection
- P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
- P264 - Wash hands thoroughly after handling
- 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 CENTRE or doctor/physician
- P302+ P352 - IF ON SKIN: Wash with plenty of soap and water
- P332 + P313 - If skin irritation occurs: Get medical advice/attention
- P362 - Take off contaminated clothing and wash before reuse
- P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
- P501 - Dispose of contents/container in accordance with all local and national regulations



Other Hazards

Short Term:

Long Term:

May be harmful if swallowed. May be harmful to aquatic organisms. (based on components)
Occupational exposure to strong-inorganic-acid mists containing sulfuric acid is carcinogenic to humans. See section 11 for further explanation.

Australian Hazard Classification (NOHSC):

Hazardous Substance. 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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous

Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	GHS Classification	%
Sulfuric acid	7664-93-9	231-639-5	C; R35	Skin Corr. 1A (H314)	38.5 - 39.5
Sodium sulfate anhydrous	7757-82-6	231-820-9	Not Listed	Not Listed	4.5 - 5.5

Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	GHS Classification	%
Water	7732-18-5	231-791-2	Not Listed	Not Listed	55 - 57

Additional Information:

Ingredient(s) indicated as hazardous have been assessed under standards for workplace safety. In accordance with 29 CFR 1910.1200, the exact percentage composition of this mixture has been withheld as a trade secret.

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

SAFETY DATA SHEET

Material Name: CENTRON
Revision date: 26-May-2015

Page 3 of 9
Version: 2.0

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:** In the event of swallowing this material, seek immediate medical attention. DO NOT INDUCE VOMITING.
- 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:** Individuals with a history of hypersensitivity to this material or other materials in its chemical class, individuals with other allergic conditions or diseases (asthma, eczema, etc.).

Indication of the Immediate Medical Attention and Special Treatment Needed

- Notes to Physician:** None

5. FIRE-FIGHTING MEASURES

Extinguishing Media: Extinguish fires with CO2, extinguishing powder, foam, or water.

Special Hazards Arising from the Substance or Mixture

- Hazardous Combustion Products:** Toxic or corrosive gases including oxides of carbon and oxides of sulfur
- Fire / Explosion Hazards:** 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

Avoid dust and mist generation. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. 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:** Contain the source of spill if it is safe to do so. Collect spill with absorbent material. 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.

7. HANDLING AND STORAGE

Precautions for Safe Handling

SAFETY DATA SHEET

Material Name: CENTRON
Revision date: 26-May-2015

Page 4 of 9
Version: 2.0

7. HANDLING AND STORAGE

When handling, use appropriate personal protective equipment (see Section 8). Minimize generating airborne mists and vapors. Use with adequate ventilation. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Releases to the environment should be avoided.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions: Store tightly covered away from heat, acids, bases, and oxidizers. Protect from freezing.
Storage Temperature: < 50 °C/122 °F
Incompatible Materials: Metals , Strong alkalis , Reducing agents

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.

Sulfuric acid

ACGIH Threshold Limit Value (TWA)	0.2 mg/m ³
Australia STEL	3 mg/m ³
Australia TWA	1 mg/m ³
Austria OEL - MAKs	0.1 mg/m ³
Belgium OEL - TWA	1 mg/m ³
Bulgaria OEL - TWA	0.05 mg/m ³
Cyprus OEL - TWA	0.05 mg/m ³
Czech Republic OEL - TWA	1 mg/m ³
	0.05 mg/m ³
Denmark OEL - TWA	0.05 mg/m ³
Estonia OEL - TWA	0.05 mg/m ³
Finland OEL - TWA	0.05 mg/m ³
France OEL - TWA	0.05 mg/m ³
Germany - TRGS 900 - TWAs	0.1 mg/m ³
Germany (DFG) - MAK	0.1 mg/m ³
Greece OEL - TWA	0.05 mg/m ³
Hungary OEL - TWA	0.05 mg/m ³
Ireland OEL - TWAs	1 mg/m ³
Japan - OELs - Ceilings	1 mg/m ³
Latvia OEL - TWA	0.05 mg/m ³
Lithuania OEL - TWA	0.05 mg/m ³
Luxembourg OEL - TWA	0.05 mg/m ³
Malta OEL - TWA	0.05 mg/m ³
Netherlands OEL - TWA	0.05 mg/m ³
Vietnam OEL - TWAs	1 mg/m ³
OSHA - Final PELs - TWAs:	1 mg/m ³
Poland OEL - TWA	1 mg/m ³
	0.05 mg/m ³
Portugal OEL - TWA	0.2 mg/m ³
Romania OEL - TWA	0.05 mg/m ³
Slovakia OEL - TWA	0.1 mg/m ³
Slovenia OEL - TWA	0.05 mg/m ³
Spain OEL - TWA	0.05 mg/m ³
Sweden OEL - TWAs	0.1 mg/m ³
Switzerland OEL -TWAs	0.1 mg/m ³

SAFETY DATA SHEET

Material Name: CENTRON
Revision date: 26-May-2015

Page 5 of 9
Version: 2.0

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Sodium sulfate anhydrous

Latvia OEL - TWA 10 mg/m³
Lithuania OEL - TWA 10 mg/m³

Exposure Controls

Engineering Controls:

Engineering controls should be used as the primary means to control exposures. Keep airborne contamination levels below the exposure limits 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:

Wear impervious gloves if skin contact is possible.

Eyes:

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

Skin:

Wear impervious protective clothing to prevent skin contact.

Respiratory protection:

Whenever excessive air contamination (dust, mist, vapor) is generated, respiratory protection, with appropriate protection factors, should be used to minimize exposure. If the applicable Occupational Exposure Limit (OEL) is exceeded, wear an appropriate respirator with a protection factor sufficient to control exposures to below the OEL.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid	Color:	Clear, colorless to amber
Odor:	None	Odor Threshold:	No data available.
Molecular Formula:	Mixture	Molecular Weight:	Mixture

Solvent Solubility: No data available

Water Solubility: Soluble

pH: 1.5

Melting/Freezing Point (°C): -18

Boiling Point (°C): 121

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

No data available

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: No data available

Specific Gravity: 1.36 @ 25C/77F

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

SAFETY DATA SHEET

Material Name: CENTRON
Revision date: 26-May-2015

Page 6 of 9
Version: 2.0

10. STABILITY AND REACTIVITY

Reactivity: No data available
Chemical Stability: Stable under normal conditions of use.
Possibility of Hazardous Reactions
Oxidizing Properties: Oxidizer
Conditions to Avoid: Keep away from excessive heat and flames. Avoid contact with Alkalies , Strong caustics
Incompatible Materials: Metals , Strong alkalis , Reducing agents
Hazardous Decomposition Products: Thermal decomposition can lead to release of irritating gases and vapours. Thermal decomposition products may include oxides of sulfur

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

General Information: Toxicological properties of the formulation have not been fully investigated. The information in this section describes the potential hazards of the individual ingredients and the formulation.
Routes of exposure: eye contact , skin contact , inhalation

Industrial hygiene monitoring for airborne concentrations of sulfuric acid has been conducted in an area where this product was in use. Results of this monitoring indicated airborne sulfuric acid levels were well below the OSHA PEL for this substance. These results are available upon request. Each individual situation, however, should be evaluated separately.

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

Sulfuric acid

Rat Oral LD50 2140 mg/kg
Rat Inhalation LC50 (2 hr) 510mg/m³

Sodium sulfate anhydrous

Mouse Oral LD50 5989 mg/kg
Rabbit IV LD50 1220mg/kg

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

Sulfuric acid

Eye Irritation Severe
Skin Irritation Severe

Carcinogen Status:

The International Agency for Research on Cancer (IARC) and the United States National Toxicology Program (NTP) have classified 'occupational exposure to strong inorganic acid mists containing sulfuric acid' as a known human carcinogen. This classification applies only to sulfuric acid when generated as a mist. This classification is debated within the scientific community and there is disagreement as to whether or not a cause and effect relationship between cancer and 'occupational exposure to strong inorganic acid mists containing sulfuric acid' exists.

Sulfuric acid

IARC: Group 1 (Carcinogenic to Humans)

Product Level Toxicity Data

SAFETY DATA SHEET

Material Name: CENTRON
Revision date: 26-May-2015

Page 7 of 9
Version: 2.0

11. TOXICOLOGICAL INFORMATION

Irritation / Sensitization

Study Type	Species	Result
Skin Irritation	Rabbit	Moderate

Irritation / Sensitization Comments: Contact with this product is expected to cause eye and skin irritation, but not skin corrosion, based on available data. Signs and symptoms of eye exposure may include burning, tearing, redness, blurred vision, and swelling of the eyelids. Signs and symptoms of skin exposure may include redness, cracking or flaking of the skin, color change, and swelling of the affected area.

12. ECOLOGICAL INFORMATION

Environmental Overview: Environmental properties of the formulation have not been investigated. The following information is available for the individual ingredients. Releases to the environment should be avoided.

Toxicity:

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

Sulfuric acid

<i>Brachydanio rerio</i> (Zebra fish)	LC50	96 Hours	> 500 mg/L
<i>Daphnia magna</i> (Water Flea)	EC50	24 Hours	29 mg/L

Persistence and Degradability: No data available

Bio-accumulative Potential: No data available

Mobility in Soil: No data available

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods: Waste of this product may qualify as a RCRA Hazardous Waste. Status should be confirmed by testing for RCRA hazardous characteristics (i.e. corrosivity, toxicity, reactivity, or ignitability). Waste may be classified as hazardous due to the ph/corrosivity. 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.

This material is regulated for transportation as a hazardous material/dangerous good. For US DOT, refer to the applicable RQ below.

UN number:	UN 3264
UN proper shipping name:	Corrosive Liquid, Acidic, Inorganic, n.o.s. (Sulfuric acid)

SAFETY DATA SHEET

Material Name: **CENTRON**
Revision date: 26-May-2015

Page 8 of 9
Version: 2.0

Transport hazard class(es): 8
Packing group: III

For small quantities packed in combination packaging, exceptions may apply.

U.S. DOT Reportable Quantity (RQ), 49 CFR 172.101 Appendix A:

Sulfuric acid

CERCLA/SARA Hazardous Substances and their Reportable Quantities: 1000 lb
454 kg

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.



Sulfuric acid

CERCLA/SARA 313 Emission reporting	1.0 %
CERCLA/SARA Hazardous Substances and their Reportable Quantities:	1000 lb 454 kg
CERCLA/SARA - Section 302 Extremely Hazardous TPQs	1000 lb
CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs	1000 lb
California Proposition 65	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	231-639-5

Sodium sulfate anhydrous

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	231-820-9

Water

SAFETY DATA SHEET

Material Name: CENTRON
Revision date: 26-May-2015

Page 9 of 9
Version: 2.0

15. REGULATORY INFORMATION

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	231-791-2

16. OTHER INFORMATION

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

Skin corrosion/irritation-Cat.1A; H314 - Causes severe skin burns and eye damage

C - Corrosive

R35 - Causes severe burns.

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 2 - Hazard Identification. Updated Section 7 - Handling and Storage. Updated Section 8 - Exposure Controls / Personal Protection. Updated Section 11 - Toxicology Information. Updated Section 14 - Transport 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 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