

SAFETY DATA SHEET



Revision date: 26-May-2015

Version: 2.0

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

Product Identifier

Material Name: CENTROL (formerly Caus-Tec)

Trade Name: CENTROL
Synonyms: Caus-Tec pH Booster, Caus-Tec 80-20
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

Acute Oral Toxicity: Category 5
Skin Corrosion/Irritation: Category 1A
Serious Eye Damage/Eye Irritation: Category 1
Substances/mixtures corrosive to metal- Category 1

EU Classification:

EU Indication of danger: Corrosive

EU Symbol: C
EU Risk Phrases:

R35 - Causes severe burns.
R41 - Risk of serious damage to eyes.

Label Elements

Signal Word: Danger
Hazard Statements: H314 - Causes severe skin burns and eye damage
H303 - May be harmful if swallowed
H290 - May be corrosive to metals

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Precautionary Statements:

- P280 - Wear protective gloves/protective clothing/eye protection/face protection
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray
- P264 - Wash hands thoroughly after handling
- P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
- P363 - Wash contaminated clothing before reuse
- 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
- P301+ P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
- P405 - Store locked up
- 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:

May be harmful if inhaled. May cause mucous membrane and respiratory tract irritation. (based on components) May be harmful to aquatic organisms. Hazardous Substance. Dangerous Goods.

Australian Hazard Classification (NOHSC):

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 | % |
|---------------------|------------|-----------------------|-------------------|---|---------|
| Sodium hydroxide | 1310-73-2 | 215-185-5 | C; R35 | Skin Corr. 1A (H314) | 30 - 34 |
| Potassium hydroxide | 1310-58-3 | 215-181-3 | Xn; R22 C; R35 | Acute Tox. 4 (H302) Skin Corr. 1A (H314) | 7 - 9 |

| Ingredient | CAS Number | EU EINECS/ELINCS List | EU Classification | GHS Classification | % |
|------------|------------|-----------------------|-------------------|--------------------|---------|
| Water | 7732-18-5 | 231-791-2 | Not Listed | Not Listed | 55 - 65 |

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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

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: None known

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 may be expected in fires involving this mixture.

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.

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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

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. Keep in a dry, cool place. Protect from freezing.

Incompatible Materials: Metals, Strong alkalis, Strong acids and oxidising 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.

Sodium hydroxide

| | |
|--------------------------------|-----------------------|
| ACGIH Ceiling Threshold Limit: | 2 mg/m ³ |
| Australia PEAK | 2 mg/m ³ |
| Austria OEL - MAKs | 2 mg/m ³ |
| Bulgaria OEL - TWA | 2.0 mg/m ³ |
| Czech Republic OEL - TWA | 1 mg/m ³ |
| Estonia OEL - TWA | 1 mg/m ³ |
| France OEL - TWA | 2 mg/m ³ |
| Greece OEL - TWA | 2 mg/m ³ |
| Hungary OEL - TWA | 2 mg/m ³ |
| Japan - OELs - Ceilings | 2 mg/m ³ |
| Latvia OEL - TWA | 0.5 mg/m ³ |
| OSHA - Final PELs - TWAs: | 2 mg/m ³ |
| Poland OEL - TWA | 0.5 mg/m ³ |
| Slovakia OEL - TWA | 2 mg/m ³ |
| Slovenia OEL - TWA | 2 mg/m ³ |
| Sweden OEL - TWAs | 1 mg/m ³ |
| Switzerland OEL - TWAs | 2 mg/m ³ |

Potassium hydroxide

| | |
|--------------------------------|-----------------------|
| ACGIH Ceiling Threshold Limit: | 2 mg/m ³ |
| Australia PEAK | 2 mg/m ³ |
| Austria OEL - MAKs | 2 mg/m ³ |
| Bulgaria OEL - TWA | 2.0 mg/m ³ |
| Czech Republic OEL - TWA | 1 mg/m ³ |
| Estonia OEL - TWA | 2 mg/m ³ |
| Greece OEL - TWA | 2 mg/m ³ |
| Hungary OEL - TWA | 2 mg/m ³ |
| Japan - OELs - Ceilings | 2 mg/m ³ |
| Poland OEL - TWA | 0.5 mg/m ³ |
| Sweden OEL - TWAs | 1 mg/m ³ |
| Switzerland OEL - TWAs | 2 mg/m ³ |

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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. General room ventilation is adequate unless the process generates dust, mist or fumes. |
| 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: | 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. Whenever air contamination (mist, vapor or odor) is generated, respiratory protection is recommended as a precaution to minimize exposure. |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|---|--------------------|--------------------------|--------------------|
| Physical State: | Liquid | Color: | Colorless |
| Odor: | None | Odor Threshold: | No data available. |
| Molecular Formula: | Mixture | Molecular Weight: | Mixture |
| Solvent Solubility: | No data available | | |
| Water Solubility: | Soluble | | |
| pH: | 13 - 14 | | |
| Melting/Freezing Point (°C): | No data available | | |
| Boiling Point (°C): | >= 133 | | |
| 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: | 1.42 @ 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 | |

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 |

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10. STABILITY AND REACTIVITY

Conditions to Avoid: Keep away from excessive heat and flames. Exothermic reaction with strong acids
Incompatible Materials: Metals , Strong alkalis , Strong acids and oxidising agents
Hazardous Decomposition Products: Thermal decomposition can lead to release of irritating gases and vapours.

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

General Information: Toxicological properties of the formulation have not been 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

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

Sodium hydroxide

Mouse IP LD50 40 mg/kg

Potassium hydroxide

Rat Oral LD50 273 mg/kg

Inhalation Acute Toxicity

May be harmful if inhaled. May cause respiratory tract and mucous membrane irritation.

Ingestion Acute Toxicity

May be harmful if swallowed

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

Sodium hydroxide

Eye Irritation Rabbit Severe
Skin Irritation Rabbit Severe

Potassium hydroxide

Skin Irritation Rabbit Severe
Skin Irritation Guinea Pig Severe
Eye Irritation Rabbit Moderate

Irritation / Sensitization Comments:

May cause irreversible eye damage.

Skin Irritation / Sensitization

May cause skin burns/irreversible skin damage.

Carcinogen Status:

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

Product Level Toxicity Data

**Acute Toxicity Estimate (ATE),
oral**

3030 mg/kg

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12. ECOLOGICAL INFORMATION

| | |
|---------------------------------------|--|
| Environmental Overview: | Environmental properties of the formulation have not been investigated. Releases to the environment should be avoided. |
| 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: | 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 3266 |
| UN proper shipping name: | Corrosive liquid, basic, inorganic, n.o.s. (Sodium hydroxide, Potassium hydroxide) |
| Transport hazard class(es): | 8 |
| Packing group: | II |

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

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

| | |
|--|-------------------|
| Sodium hydroxide | |
| CERCLA/SARA Hazardous Substances and their Reportable Quantities: | 1000 lb 454 kg |
| Potassium hydroxide | |
| CERCLA/SARA Hazardous Substances and their Reportable Quantities: | 1000 lb 454 kg |

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15. REGULATORY INFORMATION

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

Canada - WHMIS: Classifications

WHMIS hazard class:

Class E

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.



Sodium hydroxide

| | |
|---|--------------------------|
| CERCLA/SARA 313 Emission reporting | Not Listed |
| CERCLA/SARA Hazardous Substances and their Reportable Quantities: | 1000 lb 454 kg |
| 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 5 Schedule 6 |
| EU EINECS/ELINCS List | 215-185-5 |

Potassium hydroxide

| | |
|---|--------------------------|
| CERCLA/SARA 313 Emission reporting | Not Listed |
| CERCLA/SARA Hazardous Substances and their Reportable Quantities: | 1000 lb 454 kg |
| 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 5 Schedule 6 |
| EU EINECS/ELINCS List | 215-181-3 |

Water

| | |
|---|------------|
| 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

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Skin corrosion/irritation-Cat.1A; H314 - Causes severe skin burns and eye damage
Acute toxicity, oral-Cat.4; H302 - Harmful if swallowed

C - Corrosive
Xn - Harmful

R35 - Causes severe burns.
R22 - Harmful if swallowed.

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 11 - Toxicology 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