



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Product Name** IMS-II Sanitizer (4211)  
**CAS #** Mixture  
**Product use** Disinfectant / Cleaner / Sanitizer / Deodorizer  
**Manufacturer** Nu-Calgon  
2008 Altom Court  
St. Louis, MO 63146 US  
Phone: 314-469-7000 / 800-554-5499  
Emergency Phone: 1-800-424-9300 (CHEMTREC)

## 2. Hazards Identification

**Emergency overview** Hazards to humans and domestic animals. DANGER  
KEEP OUT OF REACH OF CHILDREN.  
CORROSIVE.  
Do not get in eyes, on skin or on clothing.

**Potential short term health effects**

**Routes of exposure** Eye, Skin contact, Inhalation, Ingestion.

**Eyes** Causes irreversible eye damage.

**Skin** Causes chemical burns.

**Inhalation** May cause respiratory tract irritation or chemical burns.

**Ingestion** Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.

**Target organs** Skin. Eyes.

**Chronic effects** Prolonged or repeated exposure to dilutions can cause drying, defatting and dermatitis.

**Signs and symptoms** The product causes burns of eyes, skin and mucous membranes.

**OSHA Regulatory Status** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Potential environmental effects** Components of this product have been identified as having potential environmental concerns.

## 3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Alkyl Phenol Ethoxylate	9016-45-9	2.5 - 10
Tetrapotassium pyrophosphate	7320-34-5	2.5 - 10
Sodium metasilicate	6834-92-0	1 - 2.5
Tetrasodium ethylenediamine tetraacetate	64-02-8	0.1 - 1

## 4. First Aid Measures

**First aid procedures**

**Eye contact** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**Skin contact** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**Inhalation** Remove affected person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

**Ingestion** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**Notes to physician** If the product is ingested, probable mucosal damage may contraindicate the use of gastric lavage. Treat the affected person appropriately.

**General advice**

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

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## 5. Fire Fighting Measures

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<b>Flammable properties</b>	Not flammable by OSHA criteria.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Water spray. Fog. Carbon dioxide. Dry chemical.
<b>Unsuitable extinguishing media</b>	Not available
<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	Not available
<b>Protective equipment for firefighters</b>	Firefighters should wear full protective clothing including self contained breathing apparatus.
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of nitrogen. Oxides of carbon. Oxides of sulphur. Oxides of phosphorus.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	Not available
<b>Sensitivity to static discharge</b>	Not available

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## 6. Accidental Release Measures

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<b>Personal precautions</b>	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
<b>Environmental precautions</b>	Do not discharge into lakes, streams, ponds or public waters.
<b>Methods for containment</b>	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.
<b>Methods for cleaning up</b>	Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills to original containers for re-use.

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## 7. Handling and Storage

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<b>Handling</b>	Do not get in eyes, on skin or on clothing. Avoid breathing vapors or mists of this product. Use good industrial hygiene practices in handling this material. Keep container tightly closed. Use only with adequate ventilation. Wash thoroughly after handling.
<b>Storage</b>	Store in a dry place no lower in temperature than 50°F or higher than 120°F. Do not contaminate water, food or feed by storage or disposal. Keep out of the reach of children.

## 8. Exposure Controls / Personal Protection

### Exposure limits

Ingredient(s)	Exposure Limits
Alkyl Phenol Ethoxylate	<b>ACGIH-TLV</b> Not established <b>OSHA-PEL</b> Not established
Sodium metasilicate	<b>ACGIH-TLV</b> TWA: 10 mg/m <sup>3</sup> <b>OSHA-PEL</b> Not established
Tetrapotassium pyrophosphate	<b>ACGIH-TLV</b> Not established <b>OSHA-PEL</b> Not established
Tetrasodium ethylenediamine tetraacetate	<b>ACGIH-TLV</b> Not established <b>OSHA-PEL</b> TWA: 15 mg/m <sup>3</sup>

### Engineering controls

General ventilation normally adequate.

### Personal protective equipment

#### Eye / face protection

Use a face shield if splashing is possible. Wear chemical goggles.

#### Hand protection

Rubber gloves. Confirm with a reputable supplier first.

#### Skin and body protection

As required by employer code.

#### Respiratory protection

Avoid breathing mists or vapors. Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.

#### General hygiene considerations

Use good industrial hygiene practices in handling this material. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

## 9. Physical and Chemical Properties

Appearance	Clear.
Color	Colorless to Slightly Amber
Form	Liquid
Odor	Characteristic
Odor threshold	Not available
Physical state	Liquid
pH	13.1 (Concentrate)
Freezing point	32.00 °F (0 °C)
Boiling point	212.00 °F (100 °C)
Pour point	Not available
Evaporation rate	Same as water
Flash point	None to boiling
Auto-ignition temperature	Not available
Flammability limits in air, lower, % by volume	Not available
Flammability limits in air, upper, % by volume	Not available
Vapor pressure	Not available
Vapor density	Not available
Specific gravity	1.1 ± 0.005
Octanol/water coefficient	Not available

<b>Solubility (H2O)</b>	Complete
<b>VOC (Weight %)</b>	Not available
<b>Viscosity</b>	Not available
<b>Percent volatile</b>	87

## 10. Stability and Reactivity

<b>Reactivity</b>	Reacts violently with acids. This product may react with oxidizing agents.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Conditions to avoid</b>	Hazardous vapours may be produced when mixed with chlorinated detergents or sanitizers. Do not mix with other chemicals.
<b>Incompatible materials</b>	Acids. Oxidizing agents.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of nitrogen. Oxides of carbon. Oxides of sulphur. Oxides of phosphorus.

## 11. Toxicological Information

### Component analysis - LC50

Ingredient(s)	LC50
Alkyl Phenol Ethoxylate	Not available
Sodium metasilicate	Not available
Tetrapotassium pyrophosphate	Not available
Tetrasodium ethylenediamine tetraacetate	Not available

### Component analysis - Oral LD50

Ingredient(s)	LD50
Alkyl Phenol Ethoxylate	2490 mg/kg rat
Sodium metasilicate	1153 mg/kg rat
Tetrapotassium pyrophosphate	4000 mg/kg rat
Tetrasodium ethylenediamine tetraacetate	2000 mg/kg rat

### Effects of acute exposure

<b>Eye</b>	Causes irreversible eye damage.
<b>Skin</b>	Causes chemical burns.
<b>Inhalation</b>	May cause respiratory tract irritation or chemical burns.
<b>Ingestion</b>	Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.
<b>Sensitization</b>	Non-hazardous by OSHA criteria.
<b>Chronic effects</b>	Non-hazardous by OSHA criteria.
<b>Carcinogenicity</b>	Non-hazardous by OSHA criteria.
<b>Mutagenicity</b>	Non-hazardous by OSHA criteria.
<b>Reproductive effects</b>	Non-hazardous by OSHA criteria.
<b>Teratogenicity</b>	Non-hazardous by OSHA criteria.
<b>Name of Toxicologically Synergistic Products</b>	Not available

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## 12. Ecological Information

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**Ecotoxicity** Components of this product have been identified as having potential environmental concerns.

**Ecotoxicity - Freshwater Algae - Acute Toxicity Data**

Tetrasodium ethylenediamine 64-02-8 72 Hr EC50 *Desmodesmus subspicatus*: 1.01 mg/L tetraacetate

**Ecotoxicity - Freshwater Fish - Acute Toxicity Data**

Sodium metasilicate 6834-92-0 96 Hr LC50 *Brachydanio rerio*: 210 mg/L [semi-static]; 96 Hr LC50 *Brachydanio rerio*: 210 mg/L

Tetrapotassium pyrophosphate 7320-34-5 96 Hr LC50 *Oncorhynchus mykiss*: >100 mg/L

Tetrasodium ethylenediamine 64-02-8 96 Hr LC50 *Lepomis macrochirus*: 41 mg/L [static]; 96 Hr LC50 *Pimephales promelas*: 59.8 mg/L [static]

**Ecotoxicity - Water Flea - Acute Toxicity Data**

Sodium metasilicate 6834-92-0 96 Hr EC50 *Daphnia magna*: 216 mg/L

Tetrapotassium pyrophosphate 7320-34-5 48 Hr EC50 water flea: >100 mg/L

Tetrasodium ethylenediamine 64-02-8 24 Hr EC50 *Daphnia magna*: 610 mg/L tetraacetate

**Persistence / degradability** Not available

**Bioaccumulation / accumulation** Not available

**Mobility in environmental media** Not available

**Environmental effects** Not available

**Aquatic toxicity** Not available

**Partition coefficient** Not available

**Chemical fate information** Not available

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## 13. Disposal Considerations

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**Disposal instructions** IF EMPTY: Do not reuse this container. Place in trash or offer for recycling if available. Dispose in accordance with all applicable regulations.

**Waste from residues / unused products** Not available

**Contaminated packaging** Not available

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## 14. Transport Information

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**U.S. Department of Transportation (DOT)**

Not regulated as dangerous goods.

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## 15. Regulatory Information

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**Occupational Safety and Health Administration (OSHA)**

29 CFR 1910.1200 hazardous chemical Yes

**US Federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

EPA registration number 1839-50-65516

**CERCLA (Superfund) reportable quantity**

None

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**Section 302 extremely hazardous substance** No

**Section 311 hazardous chemical** Yes

**Clean Air Act (CAA)** Not available

**Clean Water Act (CWA)** Not available

**State regulations** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

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**Inventory status****Country(s) or region**

United States &amp; Puerto Rico

**Inventory name**

Toxic Substances Control Act (TSCA) Inventory

**On inventory (yes/no)\***

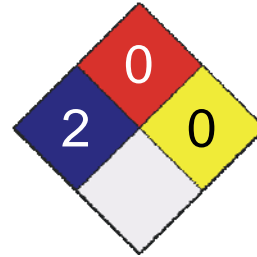
Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**16. Other Information**

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	/ 2
Flammability	0
Physical Hazard	0
Personal Protection	X

**Disclaimer**

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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15-Sep-2011

**Prepared by**

Nu-Calgon Technical Service (314) 469-7000

**Other information**

For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.