



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

<b>Product Name</b>	<b>Cal-Shield (4148)</b>
<b>CAS #</b>	Mixture
<b>Product use</b>	Coil Protectant
<b>Manufacturer</b>	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

<b>Emergency overview</b>	MAY CAUSE SKIN IRRITATION. MAY CAUSE EYE IRRITATION. MAY CAUSE RESPIRATORY TRACT IRRITATION.
<b>Potential short term health effects</b>	
<b>Routes of exposure</b>	Eye, Skin contact, Inhalation, Ingestion.
<b>Eyes</b>	May cause irritation.
<b>Skin</b>	May cause irritation.
<b>Inhalation</b>	May cause respiratory tract irritation.
<b>Ingestion</b>	May cause stomach distress, nausea or vomiting.
<b>Target organs</b>	Eyes. Skin.
<b>Chronic effects</b>	Prolonged or repeated exposure can cause drying, defatting and dermatitis.
<b>Signs and symptoms</b>	Symptoms may include redness, edema, drying, defatting and cracking of the skin.
<b>OSHA Regulatory Status</b>	This product is NOT known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
<b>Potential environmental effects</b>	See section 12.

## 3. Composition / Information on Ingredients

<b>Composition comments</b>	Non-hazardous by WHMIS/OSHA criteria
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## 4. First Aid Measures

<b>First aid procedures</b>	
<b>Eye contact</b>	Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.
<b>Skin contact</b>	Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.
<b>Inhalation</b>	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
<b>Ingestion</b>	Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.
<b>Notes to physician</b>	Symptoms may be delayed.
<b>General advice</b>	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.

## 5. Fire Fighting Measures

<b>Flammable properties</b>	Not flammable by WHMIS/OSHA criteria.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Treat for surrounding material.
<b>Unsuitable extinguishing media</b>	Not available

**Protection of firefighters****Specific hazards arising from the chemical** Not available**Protective equipment for firefighters** Firefighters should wear full protective clothing including self contained breathing apparatus.**Hazardous combustion products** May include and are not limited to: Oxides of carbon.**Explosion data****Sensitivity to mechanical impact** Not available**Sensitivity to static discharge** Not available

## 6. Accidental Release Measures

**Personal precautions** 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.**Environmental precautions** Do not discharge into lakes, streams, ponds or public waters.**Methods for containment** Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.**Methods for cleaning up** 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.

## 7. Handling and Storage

**Handling** Use good industrial hygiene practices in handling this material.  
When using do not eat or drink.  
Avoid contact with skin and clothing.  
Avoid contact with eyes.  
Avoid breathing vapors or mists of this product.  
Keep container tightly closed.  
Use only with adequate ventilation.  
Wash thoroughly after handling.**Storage** Keep out of reach of children.  
Store in a closed container away from incompatible materials.

## 8. Exposure Controls / Personal Protection

**Engineering controls** General ventilation normally adequate.**Personal protective equipment****Eye / face protection** Wear safety glasses with side shields.**Hand protection** Rubber gloves. Confirm with a reputable supplier first.**Skin and body protection** As required by employer code.**Respiratory protection** Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.  
When using do not eat or drink.  
Wash hands before breaks and immediately after handling the product.

## 9. Physical and Chemical Properties

**Appearance** Cloudy  
**Color** Colorless  
**Form** aqueous solution  
**Odor** Not available  
**Odor threshold** Not available  
**Physical state** Liquid  
**pH** 4.0 (Concentrate)  
**Melting point** Not available  
**Freezing point** Not available  
**Boiling point** Not available  
**Pour point** Not available  
**Evaporation rate** Not available

Flash point	Not available
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	Not available
Relative density	8.39 lbs/gallon
Octanol/water coefficient	Not available
Percent volatile	Not available

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## 10. Stability and Reactivity

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Reactivity	This product may react with strong oxidizing agents.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Do not mix with other chemicals.
Incompatible materials	Oxidizers.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon.

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## 11. Toxicological Information

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Effects of acute exposure	
Eye	May cause irritation.
Skin	May cause irritation.
Inhalation	May cause respiratory tract irritation.
Ingestion	May cause stomach distress, nausea or vomiting.
Sensitization	Non-hazardous by WHMIS/OSHA criteria.
Chronic effects	Non-hazardous by WHMIS/OSHA criteria.
Carcinogenicity	Non-hazardous by WHMIS/OSHA criteria.
Mutagenicity	Non-hazardous by WHMIS/OSHA criteria.
Reproductive effects	Non-hazardous by WHMIS/OSHA criteria.
Teratogenicity	Non-hazardous by WHMIS/OSHA criteria.
Name of Toxicologically Synergistic Products	Not available

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## 12. Ecological Information

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Ecotoxicity	Not available
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
Other adverse effects	Not available

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## 13. Disposal Considerations

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Disposal instructions	Dispose in accordance with all applicable regulations.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

## 14. Transport Information

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

Not regulated as dangerous goods.

### Transportation of Dangerous Goods (TDG - Canada)

Not regulated as dangerous goods.

## 15. Regulatory Information

**Canadian federal regulations** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**WHMIS status** Not Controlled

### Occupational Safety and Health Administration (OSHA)

**29 CFR 1910.1200 hazardous chemical** No

**US Federal regulations** This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### CERCLA (Superfund) reportable quantity

None

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

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

**Section 302 extremely hazardous substance** No

**Section 311 hazardous chemical** No

**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.

### Inventory name

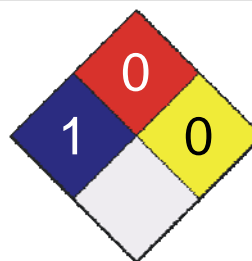
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

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	/ 1
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.

**Issue date** 30-Mar-2012

**Effective date** 31-Mar-2012

**Expiry date** 31-Mar-2015

**Prepared by**  
**Other information**

Nu-Calgon Technical Service (314) 469-7000

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

This MSDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.