




SAFETY DATA SHEET

1. Product and Company Identification

| | |
|--------------------------------------|---|
| Product identifier | Evap Pow'R C (4168-08, 4168-05, 4168-01) |
| Other means of identification | Not available |
| Recommended use | Evaporator Coil Cleaner |
| Recommended restrictions | None known. |
| 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

| | | |
|--|---|------------|
| Physical hazards | Not classified. | |
| Health hazards | Acute toxicity, dermal | Category 4 |
| | Skin corrosion/irritation | Category 2 |
| | Serious eye damage/eye irritation | Category 2 |
| Environmental hazards | Not classified. | |
| OSHA defined hazards | Not classified. | |
| Label elements |  | |
| Signal word | Warning | |
| Hazard statement | Harmful in contact with skin. Causes skin irritation. Causes serious eye irritation. | |
| Precautionary statement | | |
| Prevention | Wash thoroughly after handling. Wear protective gloves/protective clothing. Wear eye/face protection. | |
| Response | If on skin: Wash with plenty of water. Call a poison center/doctor if you feel unwell. If skin irritation occurs: Get medical advice/attention. Specific treatment (see this label). Take off contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. | |
| Storage | Store away from incompatible materials. | |
| Disposal | Dispose of contents/container in accordance with local/regional/national/international regulations. | |
| Hazard(s) not otherwise classified (HNOC) | None known. | |
| Supplemental information | 1% of the mixture consists of component(s) of unknown acute oral toxicity. 91% of the mixture consists of component(s) of unknown acute inhalation toxicity. | |

3. Composition/Information on Ingredients

| Mixture | | | |
|------------------------------|--------------------------|------------|-------|
| Chemical name | Common name and synonyms | CAS number | % |
| Ethanol, 2-butoxy- | | 111-76-2 | 3 - 7 |
| Sodium xylene sulphonate | | 1300-72-7 | 3 - 7 |
| Alcohols, C7-21, ethoxylated | | 68991-48-0 | 1 - 5 |

| | |
|-----------------------------|---|
| Composition comments | US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. |
|-----------------------------|---|

4. First Aid Measures

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|-------------------|--|
| Inhalation | If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention. |
|-------------------|--|

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|---|--|
| Skin contact | If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Specific treatment (see product label). Call a poison center/doctor if you feel unwell. |
| Eye contact | If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| Ingestion | Rinse mouth. Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention. |
| Most important symptoms/effects, acute and delayed | Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. |
| Indication of immediate medical attention and special treatment needed | Treat patient symptomatically. |
| General information | 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. Wash contaminated clothing before reuse. Keep out of reach of children. |

5. Fire Fighting Measures

| | |
|--|---|
| Suitable extinguishing media | Water fog. Foam. Dry chemical powder. Carbon dioxide. |
| Unsuitable extinguishing media | Not available. |
| Specific hazards arising from the chemical | Firefighters should wear a self-contained breathing apparatus. |
| Special protective equipment and precautions for firefighters | Firefighters should wear full protective clothing including self contained breathing apparatus. |
| Fire-fighting equipment/instructions | Move containers from fire area if you can do so without risk. |
| Specific methods | Use standard firefighting procedures and consider the hazards of other involved materials. |
| General fire hazards | No unusual fire or explosion hazards noted. |
| Hazardous combustion products | May include and are not limited to: Oxides of carbon. Oxides of sulfur. |
| Explosion data | |
| Sensitivity to mechanical impact | Not available. |
| Sensitivity to static discharge | Not available. |

6. Accidental Release Measures

| | |
|--|--|
| Personal precautions, protective equipment and emergency procedures | Keep people away from and upwind of spill/leak. Keep out of low areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. |
| Methods and materials for containment and cleaning up | Stop leak if you can do so without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Never return spills to original containers for re-use. Clean surface thoroughly to remove residual contamination. Following product recovery, flush area with water. Prevent entry into waterways, sewer, basements or confined areas. For waste disposal, see section 13 of the SDS. |
| Environmental precautions | Do not discharge into lakes, streams, ponds or public waters. |

7. Handling and Storage

| | |
|---|---|
| Precautions for safe handling | Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists of this product. Wear appropriate personal protective equipment. Use only with adequate ventilation. Observe good industrial hygiene practices. Wash thoroughly after handling. When using do not eat or drink. |
| Conditions for safe storage, including any incompatibilities | Store in a closed container. Store away from incompatible materials (see Section 10 of the SDS). Keep out of reach of children. |

8. Exposure Controls/Personal Protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| Components | Type | Value |
|-----------------------------------|------|-----------|
| Ethanol, 2-butoxy- (CAS 111-76-2) | PEL | 240 mg/m3 |
| | | 50 ppm |

US. ACGIH Threshold Limit Values

| Components | Type | Value |
|-----------------------------------|------|--------|
| Ethanol, 2-butoxy- (CAS 111-76-2) | TWA | 20 ppm |

US. NIOSH: Pocket Guide to Chemical Hazards

| Components | Type | Value |
|-----------------------------------|------|----------|
| Ethanol, 2-butoxy- (CAS 111-76-2) | TWA | 24 mg/m3 |
| | | 5 ppm |

Biological limit values

ACGIH Biological Exposure Indices

| Components | Value | Determinant | Specimen | Sampling Time |
|-----------------------------------|----------|--|---------------------|---------------|
| Ethanol, 2-butoxy- (CAS 111-76-2) | 200 mg/g | Butoxyacetic acid (BAA), with hydrolysis | Creatinine in urine | * |

* - For sampling details, please see the source document.

Exposure guidelines Chemicals listed in section 3 that are not listed here do not have established limit values for ACGIH or OSHA PEL.

Appropriate engineering controls Ensure adequate ventilation.

Individual protection measures, such as personal protective equipment

| | |
|-------------------------------|--|
| Eye/face protection | Wear safety glasses with side shields. |
| Skin protection | |
| Hand protection | Rubber gloves. Confirm with a reputable supplier first. |
| Other | As required by employer code. |
| Respiratory protection | Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. |
| Thermal hazards | Not applicable. |

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product. When using do not eat or drink.

9. Physical and Chemical Properties

| | |
|--|-------------------|
| Appearance | Clear |
| Physical state | Liquid. |
| Form | Liquid |
| Color | Green |
| Odor | butyl |
| Odor threshold | Not available. |
| pH | 7.9 (Concentrate) |
| Melting point/freezing point | Not available. |
| Initial boiling point and boiling range | Not available. |
| Pour point | Not available. |
| Specific gravity | Not available. |
| Partition coefficient (n-octanol/water) | Not available |
| Flash point | Not available |
| Evaporation rate | Not available |
| Flammability (solid, gas) | Not applicable. |

Upper/lower flammability or explosive limits

| | |
|--------------------------------|----------------|
| Flammability limit - lower (%) | Not available |
| Flammability limit - upper (%) | Not available |
| Explosive limit - lower (%) | Not available. |
| Explosive limit - upper (%) | Not available. |
| Vapor pressure | Not available |
| Vapor density | Not available |
| Relative density | Not available. |
| Solubility(ies) | Not available. |
| Auto-ignition temperature | Not available |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| Other information | |
| Percent volatile | Not available |

10. Stability and Reactivity

| | |
|------------------------------------|---|
| Reactivity | May react with incompatible materials. |
| 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 | Strong oxidizing agents. Acids. |
| Hazardous decomposition products | May include and are not limited to: Oxides of carbon. Oxides of sulfur. |

11. Toxicological Information

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

Information on likely routes of exposure

| | |
|---------------------|--|
| Ingestion | Expected to be a low ingestion hazard. May cause stomach distress, nausea or vomiting. |
| Inhalation | Prolonged inhalation may be harmful. |
| Skin contact | Harmful in contact with skin. |

2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

US. NIOSH: Pocket Guide to Chemical Hazards

Ethanol, 2-butoxy- (CAS 111-76-2)

Can be absorbed through the skin.

Eye contact Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity Harmful in contact with skin.

| Components | Species | Test Results |
|---|---------------|--------------|
| 1-Dodecanamine, N,N-dimethyl-,N-oxide (CAS 1643-20-5) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Not available | |
| <i>Inhalation</i> | | |
| LC50 | Not available | |
| <i>Oral</i> | | |
| LD50 | Mouse | 2700 mg/kg |

| Components | Species | Test Results |
|--|---|-------------------|
| Alcohols, C7-21, ethoxylated (CAS 68991-48-0) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Rabbit | > 2000 mg/kg |
| <i>Inhalation</i> | | |
| LC50 | Not available | |
| <i>Oral</i> | | |
| LD50 | Rat | 1410 mg/kg |
| Ethanol, 2-butoxy- (CAS 111-76-2) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Guinea pig | 207 mg/kg |
| | Rabbit | 400 mg/kg |
| | | 220 mg/kg |
| | | 99 mg/kg |
| | Rat | 99 mg/kg |
| <i>Inhalation</i> | | |
| LC50 | Mouse | 700 ppm, 7 Hours |
| | Rat | 450 ppm, 4 Hours |
| | | 2.2 mg/L, 4 Hours |
| <i>Oral</i> | | |
| LD50 | Guinea pig | 1200 mg/kg |
| | Mouse | 1200 mg/kg |
| | Rabbit | 320 mg/kg |
| | Rat | 470 mg/kg |
| Sodium xylene sulphonate (CAS 1300-72-7) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Not available | |
| <i>Inhalation</i> | | |
| LC50 | Rat | 557 mg/l/4h |
| <i>Oral</i> | | |
| LD50 | Rat | 6500 mg/kg |
| Skin corrosion/irritation | Causes skin irritation. | |
| Exposure minutes | Not available. | |
| Erythema value | Not available. | |
| Oedema value | Not available. | |
| Serious eye damage/eye irritation | Causes serious eye irritation. | |
| Corneal opacity value | Not available. | |
| Iris lesion value | Not available. | |
| Conjunctival reddening value | Not available. | |
| Conjunctival oedema value | Not available. | |
| Recover days | Not available. | |
| Respiratory or skin sensitization | | |
| Respiratory sensitization | Not available. | |
| Skin sensitization | This product is not expected to cause skin sensitization. | |
| US. NIOSH: Pocket Guide to Chemical Hazards | | |
| Ethanol, 2-butoxy- (CAS 111-76-2) | Can be absorbed through the skin. | |
| US. NIOSH: Pocket Guide to Chemical Hazards | | |
| Ethanol, 2-butoxy- (CAS 111-76-2) | Can be absorbed through the skin. | |
| Germ cell mutagenicity | Not classified. | |

| | | |
|---|--|--|
| Mutagenicity | Not classified. | |
| Carcinogenicity | See below. | |
| ACGIH Carcinogens | | |
| Ethanol, 2-butoxy- (CAS 111-76-2) | | A3 Confirmed animal carcinogen with unknown relevance to humans. |
| IARC Monographs. Overall Evaluation of Carcinogenicity | | |
| Ethanol, 2-butoxy- (CAS 111-76-2) | | Volume 88 - 3 Not classifiable as to carcinogenicity to humans. |
| Reproductive toxicity | Not classified. | |
| Teratogenicity | Not classified. | |
| Specific target organ toxicity - single exposure | Not classified. | |
| Specific target organ toxicity - repeated exposure | Not classified. | |
| Aspiration hazard | Not classified. | |
| Chronic effects | Prolonged inhalation may be harmful. | |
| | 2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans. | |
| Further information | Not available. | |
| Name of Toxicologically Synergistic Products | Not available. | |

12. Ecological Information

| | | | |
|--------------------------------------|---|---------------------------------------|---------------------|
| Ecotoxicity | See below | | |
| Components | | Species | Test Results |
| Ethanol, 2-butoxy- (CAS 111-76-2) | | | |
| Crustacea | EC50 | Daphnia | 1819 mg/L, 48 Hours |
| Aquatic | | | |
| Fish | LC50 | Inland silverside (Menidia beryllina) | 1250 mg/L, 96 hours |
| Persistence and degradability | No data is available on the degradability of this product. | | |
| Bioaccumulative potential | No data available. | | |
| Mobility in soil | No data available. | | |
| Mobility in general | Not available. | | |
| Other adverse effects | No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component. | | |

13. Disposal Considerations

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|--|--|
| Disposal instructions | Dispose of contents/container in accordance with local/regional/national/international regulations. |
| Local disposal regulations | Dispose in accordance with all applicable regulations. |
| Hazardous waste code | The waste code should be assigned in discussion between the user, the producer and the waste disposal company. |
| Waste from residues / unused products | Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). |
| Contaminated packaging | Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. |

14. Transport Information

| | |
|---|---|
| General | Canada: TDG Proof of Classification: In accordance with Part 2.2.1 (SOR/2014-152) of the Transportation of Dangerous Goods Regulations, we certify that the classification of this product is correct as of the SDS date of issue. If applicable, the technical name and the classification of the product will appear below. |
| 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 SDS contains all the information required by the Controlled Products Regulations.

Canada CEPA Schedule I: Listed substance

Ethanol, 2-butoxy- (CAS 111-76-2) Listed.

Canada NPRI VOCs with Additional Reporting Requirements: Mass reporting threshold/Identification Number

Ethanol, 2-butoxy- (CAS 111-76-2) 1 TONNES

Canada Priority Substances List (Second List): Listed substance

Ethanol, 2-butoxy- (CAS 111-76-2) Listed.

Canada WHMIS Ingredient Disclosure: Threshold limits

1-Dodecanamine, N,N-dimethyl-,N-oxide (CAS 1643-20-5) 1 %

Ethanol, 2-butoxy- (CAS 111-76-2) 1 %

WHMIS status Controlled

WHMIS classification Class D - Division 2B

WHMIS labeling



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

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

Ethanol, 2-butoxy- (CAS 111-76-2) 1.0 % N230

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Ethanol, 2-butoxy- (CAS 111-76-2) Listed. N230

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Ethanol, 2-butoxy- (CAS 111-76-2) Listed.

US CAA Section 111 Volatile Organic Compounds: Listed substance

Ethanol, 2-butoxy- (CAS 111-76-2) Listed.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

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

SARA 302 Extremely hazardous substance No

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

| Chemical name | CAS number | % by wt. |
|--------------------|------------|----------|
| Ethanol, 2-butoxy- | 111-76-2 | 3 - 7 |

Other federal regulations

Safe Drinking Water Act (SDWA) Not regulated.

Food and Drug Administration (FDA) Not regulated.

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

US - California Hazardous Substances (Director's): Listed substance

Ethanol, 2-butoxy- (CAS 111-76-2) Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

US - Illinois Chemical Safety Act: Listed substance

Ethanol, 2-butoxy- (CAS 111-76-2) Listed.

US - Louisiana Spill Reporting List: Reportable quantity (total mass into atmosphere)

Ethanol, 2-butoxy- (CAS 111-76-2) 100 LBS

US - Louisiana Spill Reporting: Listed substance

Ethanol, 2-butoxy- (CAS 111-76-2) Listed.

US - Minnesota Haz Subs: Listed substance

Ethanol, 2-butoxy- (CAS 111-76-2) Listed.

US - New Jersey RTK - Substances: Listed substance

Ethanol, 2-butoxy- (CAS 111-76-2) Listed.

US - Texas Effects Screening Levels: Listed substance

1-Dodecanamine, N,N-dimethyl-,N-oxide (CAS 1643-20-5) Listed.

Ethanol, 2-butoxy- (CAS 111-76-2) Listed.

Sodium xylene sulphonate (CAS 1300-72-7) Listed.

US. Massachusetts RTK - Substance List

Ethanol, 2-butoxy- (CAS 111-76-2) Listed.

US. Pennsylvania RTK - Hazardous Substances

Ethanol, 2-butoxy- (CAS 111-76-2) Listed.

US. Rhode Island RTK

Ethanol, 2-butoxy- (CAS 111-76-2) Listed.

Inventory status

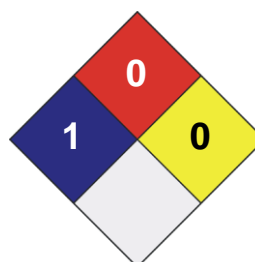
| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|---|------------------------|
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | 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 | |
|----------|---|
| 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 22-September-2015**Effective date** 22-September-2015**Expiry date** 22-September-2018**Further information** For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.**Prepared by** Nu-Calgon Technical Service Phone: (314) 469-7000

Other information This Safety Data Sheet was prepared to comply with the current OSHA Hazard Communication Standard (HCS) adoption of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).
This SDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.