



SAFETY DATA SHEET

1. Product and Company Identification

Product identifier	Evap Pow'R C (4168-01, 4168-05, 4168-08)
Other means of identification	Not available
Recommended use	Evaporator Coil Cleaner
Recommended restrictions	None known.
Manufacturer information	Nu-Calgon 2611 Schuetz Road St. Louis, MO 63043 US Phone: 314-469-7000 / 800-554-5499 Emergency Phone: 1-800-424-9300 (CHEMTREC)
Supplier	See above.

2. Hazards Identification

Physical hazards	Not classified.	
Health hazards	Acute toxicity, dermal	Category 4
	Serious eye damage/eye irritation	Category 2
Environmental hazards	Not classified.	
WHMIS 2015 defined hazards	Not classified	
Label elements		
Signal word	Warning	
Hazard statement	Harmful in contact with skin. Causes serious eye irritation.	
Precautionary statement		
Prevention	Wash thoroughly after handling. Wear eye protection. Wear protective gloves.	
Response	IF ON SKIN: Wash with plenty of water. Call a POISON CENTER or doctor if you feel unwell. Specific treatment (see information on 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 attention.	
Storage	Store locked up.	
Disposal	Dispose of container in accordance with local, regional, national and international regulations.	
WHMIS 2015: Health Hazard(s) not otherwise classified (HHNOC)	None known	
WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC)	None known	
Hazard(s) not otherwise classified (HNOC)	None known.	
Supplemental information	90% of the mixture consists of component(s) of unknown acute dermal toxicity.	

3. Composition/Information on Ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	%
Amines, C10-16 alkyldimethyl, N-oxides		70592-80-2	0.1-1*
Ethanol, 2-butoxy-		111-76-2	3 - 7*
Poly(oxy-1,2-ethanediyl), alpha-undecyl-omega-hydroxy-		34398-01-1	1 - 5*
Sodium xylene sulphonate		1300-72-7	1-5*

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

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.

*CANADA GHS: The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First Aid Measures

Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
Skin contact	IF ON SKIN: Wash with plenty of water. Specific treatment (see information on this label). Take off contaminated clothing and wash it before reuse. Call a POISON CENTER or 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 attention.
Ingestion	Rinse mouth. 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.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed. 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. Keep out of reach of children.

5. Fire Fighting Measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
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.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. 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	Large Spills: Stop the flow of material, if this is 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. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.

7. Handling and Storage

Precautions for safe handling	Do not get in eyes, on skin, or on clothing. When using, do not eat, drink or smoke. Provide adequate ventilation. Avoid prolonged exposure. Wear appropriate personal protective equipment. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use good industrial hygiene practices in handling this material.
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8. Exposure Controls/Personal Protection

Occupational exposure limits

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
Ethanol, 2-butoxy- (CAS 111-76-2)	TWA	97 mg/m3 20 ppm

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

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

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

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

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

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

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value
Ethanol, 2-butoxy- (CAS 111-76-2)	TWA	97 mg/m3 20 ppm

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

US. NIOSH: Pocket Guide to Chemical Hazards

Ethanol, 2-butoxy- (CAS 111-76-2) Can be absorbed through the skin.

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

Ethanol, 2-butoxy- (CAS 111-76-2) Can be absorbed through the skin.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields.

Skin protection**Hand protection**

Impervious gloves. Confirm with reputable supplier first.

Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended. As required by employer code.

Respiratory protection

Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

Thermal hazards

Not applicable.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. 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	7.5
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	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Percent volatile	Not available

10. Stability and Reactivity

Reactivity	This product may react with strong oxidizing agents.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Chemical stability	Material is stable under normal conditions.

Conditions to avoid	Do not mix with other chemicals.
Incompatible materials	Strong oxidizing agents.
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 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.

Eye contact Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Information on toxicological effects

Acute toxicity Harmful in contact with skin.

Components	Species	Test Results
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Amines, C10-16 alkyldimethyl, N-oxides (CAS 70592-80-2)

Acute

Dermal

LD50 Not available

Inhalation

LC50 Not available

Oral

LD50 Rat 1330 mg/kg, Charlotte Products

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

Acute

Dermal

LD50 Guinea pig 7.3 ml/kg, 4 Days, ECHA

0.3 ml/kg, 24 Hours, ECHA

0.2 ml/kg, 24 Hours, ECHA

Rabbit > 2000 mg/kg, 24 Hours, ECHA

1060 mg/kg, 24 Hours, ECHA

841 mg/kg, 24 Hours, ECHA

667 mg/kg, 24 Hours, ECHA

560 ml/kg, 24 Hours, ECHA

450 ml/kg, 24 Hours, ECHA

435 mg/kg, 24 Hours, ECHA

400 mg/kg, HSDB

0.7 ml/kg, 24 Hours, ECHA

0.6 ml/kg, ECHA

Rat > 2000 mg/kg, 24 Hours, ECHA

Inhalation

LC50 Mouse 700 mg/L, 7 Hours, HSDB

700 ppm, 7 Hours, HSDB

Rabbit 400 ppm, 7 Hours, ECHA

Rat > 900 ppm, ECHA

> 800 ppm, 4 Hours, ECHA

900 ppm, ECHA

Components	Species	Test Results
		800 ppm, 4 Hours, ECHA
		486 ppm, 4 Hours, ECHA
		450 ppm, 4 Hours, ECHA
<i>Oral</i> LD50	Dog	> 695 mg/kg, ECHA
	Guinea pig	1414 mg/kg
		1200 mg/kg, ECHA
	Mouse	2005 mg/kg, ECHA
		1519 mg/kg
		1200 mg/kg, HSDB
	Rabbit	320 mg/kg, HMIRA
	Rat	1000 - 2000 mg/kg, ECHA
		560 - 3000 mg/kg, ECHA
		530 - 2800 mg/kg
		2600 mg/kg, ECHA
		2420 mg/kg, ECHA
		1746 mg/kg
		1480 mg/kg, ECHA
		880 mg/kg, ECHA
		615 mg/kg, ECHA
Poly(oxy-1,2-ethanediyl), alpha-undecyl-omega-hydroxy- (CAS 34398-01-1)		
Acute		
<i>Dermal</i> LD50	Rabbit	> 2000 mg/kg, West Penetone
<i>Inhalation</i> LC50	Not available	
<i>Oral</i> LD50		> 1400 mg/kg, Koch Membrane Systems
	Rabbit	> 2000 mg/kg, West Penetone
	Rat	1700 mg/kg, West Penetone
Sodium xylene sulphonate (CAS 1300-72-7)		
Acute		
<i>Dermal</i> LD50	Rabbit	>= 2000 mg/kg, 24 Hours, ECHA
<i>Inhalation</i> LC50	Rat	> 6.4 mg/L, 232 Minutes, ECHA
<i>Oral</i> LD50	Rat	> 7000 mg/kg, ECHA
		> 5250 mg/kg, ECHA
		> 3000 mg/kg, ECHA
		>= 7200 mg/kg, ECHA
		6500 mg/kg, OECD SIDS
		>= 3346 mg/kg, ECHA
		>= 16.2 g/kg, ECHA
Skin corrosion/irritation	Prolonged skin contact may cause temporary 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

Canada - Alberta OELs: Irritant

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

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity See below.

ACGIH Carcinogens

Ethanol, 2-butoxy- (CAS 111-76-2) A3 Confirmed animal carcinogen with unknown relevance to humans.

Canada - Manitoba OELs: carcinogenicity

2-BUTOXYETHANOL (EGBE) (CAS 111-76-2) 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.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Teratogenicity Not available.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects May be harmful if absorbed through skin. 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.

12. Ecological Information

Ecotoxicity See below

Ecotoxicological data

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
Poly(oxy-1,2-ethanediyl), alpha-undecyl-omega-hydroxy- (CAS 34398-01-1)			
Aquatic	Crustacea	EC50	Water flea (Daphnia magna)
			1.6 - 2.5 mg/L, 48 hours
	Fish	LC50	Fathead minnow (Pimephales promelas)
			3.2 - 5 mg/L, 96 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

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

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. 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	Dispose of in accordance with local regulations. 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	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

Transport of Dangerous Goods (TDG) Proof of Classification	Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. 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 HPR and the SDS contains all the information required by the HPR.
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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.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

WHMIS 2015 Exemptions	Not applicable
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US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
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All chemicals used are on the TSCA inventory.

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. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

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
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SARA 302 Extremely hazardous substance	No
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SARA 311/312 Hazardous chemical	No
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SARA 313 (TRI reporting)

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

Other federal regulations

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

Not regulated.

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

Not regulated.

US state regulations

See below

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

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

US - Illinois Chemical Safety Act: Listed substance

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

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)

US - Texas Effects Screening Levels: Listed substance

Amines, C10-16 alkyl dimethyl, N-oxides (CAS 70592-80-2) Listed.

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

Poly(oxy-1,2-ethanediyl), Listed.

alpha-undecyl-omega-hydroxy- (CAS 34398-01-1)

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

US. Massachusetts RTK - Substance List

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

US. New Jersey Worker and Community Right-to-Know Act

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

US. Pennsylvania Worker and Community Right-to-Know Law

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

US. Rhode Island RTK

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

US. California Proposition 65

Not Listed.

Inventory status

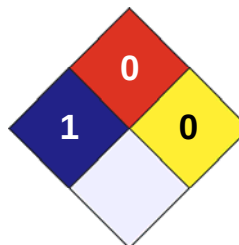
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*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**

The information in the sheet was written based on the best knowledge and experience currently available. 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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01

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Prepared by

Nu-Calgon Technical Service Phone: (314) 469-7000

Other information

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