


# Safety Data Sheet

Section 1. Identification		
<b>Product Identifier</b>	<b>Butyl Cellusolve</b>	<b>Version: 6</b> <b>Effective Date: 10 July 2017</b>
<b>Other Means Of Identification</b>	None	
<b>Initial Supplier Identifier</b>	Chemfax Products Ltd. 11444 – 42 Street SE Calgary, AB T2C 5C4 Tel: 403-287-2055	
<b>Recommended Use And Restrictions On Use</b>	Industrial Solvent	
<b>Product Family</b>	Blend	
<b>24 Hour Emergency</b>	Canutec (613) 996-6666	

## Section 2. Hazard Identification

<b>Hazard Classification</b>		
<b>Physical Hazards</b>	Flammable Liquids - Category 4	
<b>Health Hazards</b>	Serious eye damage/eye irritation - Category 2A Skin corrosion/irritation – Category 2 Acute toxicity, Oral – Category 4 Acute toxicity, Dermal – Category 4 Acute toxicity, Inhalation – Category 4	
<b>Signal Word</b>	Warning	
<b>Hazard Statement</b>	Combustible liquid. Causes serious eye irritation. Causes skin irritation. Harmful if swallowed, in contact with skin or if inhaled.	
<b>Precautionary Prevention Statement</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wash skin thoroughly after handling. Wear eye and face protection. Obtain special instruction before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.	

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	Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area.
<b>Precautionary Response Statement</b>	In case of fire: Use Water fog, foam and CO <sub>2</sub> to extinguish. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If eye irritation persists: Get medical attention. IF exposed or concerned: get medical attention. F SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of water. Call a POISON CENTER or doctor/ physician if you feel unwell. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
<b>Precautionary Storage Statement</b>	Store in a well ventilated place locked up.
<b>Precautionary Disposal Statement</b>	Dispose of contents / container in accordance with local regulations.
<b>Other Hazards</b>	None

### Section 3. Composition / Information on Ingredients

Chemical Name	Common Name or Synonyms	CAS NO. and Other Unique Identifiers	% by weight
2-Butoxyethanol	Butyl Cellusolve	111-76-2	100

### Section 4. First-Aid Measures

<b>Eye Contact</b>	Flush eyes with water for 15 minutes. Seek medical attention.
<b>Skin Contact</b>	Flush area with water. If irritation persists seek medical attention. Launder clothing before reuse.
<b>Inhalation</b>	Remove victim to fresh air. If there is difficulty breathing, seek immediate medical attention.
<b>Ingestion</b>	Give two glasses of water. Do not induce vomiting. Lay victim on left side to prevent aspiration of any vomit. Seek immediate medical attention.
<b>Most Important Symptoms and Effects Both Acute and Delayed</b>	Breathing difficulties. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

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<b>Immediate Medical Attention and Special Treatment</b>	Treat symptomatically. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.
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### Section 5. Fire-Fighting Measures

<b>Suitable and Unsuitable Extinguishing Media</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Cool closed containers exposed to fire with water spray.
<b>Hazardous Combustion Products</b>	Carbon monoxide and dioxide
<b>Specific Hazards Arising From the Product</b>	Combustible material. Containers may explode when heated. Vapors may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.). Vapors may form explosive mixtures with air. Keep product and empty container away from heat and sources of ignition. Risk of ignition.
<b>Special Protective Equipment and Precautions for Fire-Fighters</b>	Fire-fighters should wear self contained breathing apparatus and full protective clothing. Use water spray to cool containers and structures exposed to fire.

### Section 6. Accidental Release Measures

<b>Personal Precautions, Protective Equipment and Emergency Procedures</b>	Gloves (neoprene), chemical resistant footwear, coveralls. Evacuate personnel to safe area. Remove all sources of ignition. Ensure adequate ventilation. Beware of vapours accumulating to form explosive concentrations. Vapors can accumulate in low area.
<b>Environmental Precautions</b>	Remove all sources of combustion. Dyke area to prevent entry into water courses and sewer system.
<b>Methods for Clean Up</b>	Soak up product on absorbent (universal hydrocarbon), or pump into container for disposal. Wash area with soap and water.

### Section 7. Handling and Storage

<b>Precautions for Safe Handling</b>	Handle with care. Remove all sources of ignition.
<b>Conditions for Safe Storage</b>	Store in a cool dry place. Keep container closed when not in use.

### Section 8. Exposure Controls / Personal Protection

<b>Control Parameters</b>	<b>TWA: 8 Hr</b>	<b>STEL: 15 min</b>	<b>Ceiling</b>	<b>IDLH</b>
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2-Butoxyethanol	97 mg/m <sup>3</sup> Canada. Alberta, Occupational Health and Safety	360 mg/m <sup>3</sup>	700 ppm
<b>Exposure Controls</b>	Local exhaust ventilation		
<b>Appropriate Engineering Controls</b>	Provide local exhaust or general room ventilation to minimize exposure to vapours.		
<b>Individual Protective Measures</b>			
<b>Eye / Face Protection</b>	Safety glasses		
<b>Skin Protection</b>	Chemical resistant gloves (neoprene) and long sleeved clothing.		
<b>Respiratory Protection</b>	Air purifying respirator fitted with hydrocarbon vapour cartridges		

<b>Section 9. Physical and Chemical Properties</b>	
<b>Appearance</b>	Clear, colourless liquid
<b>Odour</b>	Mild Odour
<b>Odour Threshold</b>	0.1 – 0.48 ppm
<b>pH</b>	7
<b>Flash Point</b>	70 °C
<b>Boiling Point and Boiling Range</b>	168 – 173 °C
<b>Melting Point and Freezing point</b>	-77 °C
<b>Evaporation Rate</b>	0.06
<b>Flammability (solid, gas)</b>	N/A
<b>Upper and Lower Flammability or Explosive Limits</b>	12.7% @ 135°C 1.1% @ 93°C
<b>Vapour Pressure</b>	0.4 – 0.76 (mmHg @ 20 °C)
<b>Vapour Density</b>	4.1
<b>Relative Density</b>	0.89 – 0.91
<b>Solubility</b>	Completely soluble
<b>Partition co-efficient, n-Octanol/Water</b>	No data
<b>Auto-ignition Temperature</b>	230 °C / 446 °F
<b>Decomposition Temperature</b>	No data
<b>Viscosity</b>	No data
<b>% Volatile</b>	100%

<b>Section 10. Stability and Reactivity</b>	
<b>Reactivity</b>	Stable

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<b>Chemical Stability</b>	Stable
<b>Possibility of Hazardous Reactions</b>	Will not occur
<b>Conditions to Avoid</b>	High temperatures, sparks, open flames and all sources of ignition. Air sensitive. 2 Butoxyethanol can form unstable peroxides on prolonged exposure to heat and air. Avoid direct sunlight, and extended contact with air or oxygen. Oxygen exposure may lead to the formation of explosive peroxides. Do not distill to dryness. Avoid moisture. Material is hygroscopic.
<b>Incompatible Materials</b>	Strong oxidisers. Lewis or mineral acids. Violently reactive with: perchloric acid, sodium hydroxide, potassium hydroxide. Avoid contamination with high concentrations of alkalis at elevated temperatures. Aluminum and its alloys. Copper and its alloys. Bronze, brass, zinc and its alloys. Galvanised steel. Galvanised iron. Attacks some types of rubber, plastics and coatings.
<b>Hazardous Decomposition Products</b>	Heating in air may produce irritating aldehydes, acids and ketones.

Section 11. Toxicological Information			
Component Toxicity	LD50 Oral	LD50 Dermal	LC50 Inhalation
2-butoxyethanol	400 mg/kg(rat)	99-220 mg/kg (rabbit)	450 ppm (rat, 4h)
<b>Likely Routes of Exposure</b>			
<b>Skin:</b>	Rabbit - Skin irritation - 20 h.		
<b>Eyes:</b>	Rabbit - Eye irritation - 24 h - OECD Test Guideline 405.		
<b>Inhalation:</b>	Toxic. Irritating to the respiratory tract. May cause choking, shortness of breath and chest pains.		
<b>Ingestion:</b>	Toxic. Causes irritation, a burning sensation of the mouth and throat and abdominal pain. Ingestion of very high levels may cause metabolic acidosis – a condition that causes a decrease in pH and bicarbonate concentration in the body fluids.		
<b>Acute Toxicity Estimates (ATE)</b>	No data		
<b>STOT (Specific Target Organ Toxicity) – Single Exposure</b>	Not classified		
<b>Aspiration Toxicity</b>	Not classified		
<b>STOT (Specific Target Organ Toxicity) – Repeated Exposure</b>	Not classified		
<b>Skin Corrosion / Irritation</b>	May cause irritation		

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<b>Serious Eye Damage / Irritation</b>	Causes eye damage
<b>Respiratory or Skin Sensitization</b>	Not a sensitizer. (Guinea pig)
<b>Carcinogenicity</b>	3 - Group 3: Not classifiable as to its carcinogenicity to humans.
<b>Reproductive Toxicity</b>	
- <b>Sexual Function and Fertility</b>	Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.
- <b>Development of Offspring</b>	Not classified
- <b>Effects on or via Lactation</b>	Not classified
<b>Germ Cell Mutagenicity</b>	Not classified
<b>Interactive Effects</b>	Not classified
<b>Other Information</b>	Human exposure above 200 ppm can be expected to cause narcosis, damage to the kidney and liver and present an abnormal blood picture showing erythropenia, reticulocytosis, granulocytosis, leukocytosis, and would be likely to cause fragility of erythrocytes and hematuria. Swallowing of 2-butoxyethanol results in a sour taste that turns to a burning sensation and is followed by numbness of the tongue which indicates paralysis of the sensory nerve endings., Central nervous system depression, Headache, narcosis.

### Section 12. Ecological Information

<b>Ecotoxicity</b>	2 – butoxyethanol – LC50: 1490 mg/l (Lepomis macrochirus – 96 hr static) LC50: 2950 mg/l (Lepomis macrochirus – 96 hr) Harmful to aquatic life at low concentrations
<b>Persistence and Degradability</b>	Soluble in water Persistence is unlikely based on information available. Miscible with water.
<b>Bioaccumulative Potential</b>	No data
<b>Biodegradability</b>	Biodegradation is expected to be significant. Not expected to bioaccumulate.
<b>Mobility in Soil</b>	Will likely be mobile in the environment due to its water solubility.
<b>Other Adverse Effects</b>	None known

### Section 13. Disposal Considerations

<b>Disposal Considerations</b>	Dispose of contents / container in accordance with local, provincial and federal regulations.
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<b>Section 14. Transport Information</b>	
<b>UN Number</b>	None
<b>UN Proper Shipping Name</b>	None
<b>Transport Hazard Class(es)</b>	Not regulated
<b>Packaging Group</b>	Not regulated
<b>Environmental Hazards</b>	Not applicable
<b>Bulk Transport</b>	Not applicable
<b>Special Precaution</b>	Not applicable
<b>DOT Erg#</b>	Not applicable

<b>Section 15. Regulatory Information</b>	
<b>Canada – DSL Inventory</b>	All components of this product are either on the Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL) or exempt
<b>TSCA</b>	All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt
<b>Additional Information</b>	None

<b>Section 16. Other Information</b>	
<b>NFPA Rating</b>	Health-2/ Flammability-2/Reactivity-0/Special Hazard-Not applicable
<b>HMIS Rating</b>	Health-2/Flammability-2/Reactivity-0/Personal Protection-See Section 8.
<b>Prepared by:</b>	Chemfax Products Ltd., Technical Department
<b>Date Prepared:</b>	July 7, 2011
<b>Date of Latest Revision:</b>	July 10, 2017

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