

# Material Safety Data Sheet



VIVID

## Section 1. Chemical product and company identification

Trade name : VIVID  
Product use : Glass Cleaner  
Supplier : Ecolab, Professional Products Division  
370 Wabasha Street N  
St. Paul MN 55102  
5105 Tomken Road  
Mississauga ON L4W 2X5  
1-800-352-5326  
Code : 965426-01  
Date of issue : 02-November-2005

EMERGENCY HEALTH INFORMATION: 1-800-328-0026  
Outside United States and Canada CALL 1-651-222-5352 (in USA)

## Section 2. Composition, information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>% by weight</u>
2-butoxyethanol	111-76-2	10 - 30
ethanol	64-17-5	7 - 13
methanol	67-56-1	1 - 5

## Section 3. Hazards identification

Physical state : Liquid. (Liquid.)  
Emergency overview : WARNING!  
CAUSES EYE AND SKIN IRRITATION.  
MAY CAUSE RESPIRATORY TRACT IRRITATION.  
COMBUSTIBLE LIQUID AND VAPOUR.  
VAPOUR MAY CAUSE FIRE.  
Avoid contact with skin and clothing. Avoid breathing vapour or mist. Keep away from heat, sparks and flame. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.  
Routes of entry : Skin contact, Eye contact, Inhalation, Ingestion  
Potential acute health effects  
Eyes : Irritating to eyes.  
Skin : Irritating to skin.  
Inhalation : Moderately irritating to the respiratory system.  
Ingestion : No known significant effects or critical hazards.

See toxicological information (section 11)

## Section 4. First-aid measures

Eye contact : In case of contact, immediately flush eyes with cool running water. Remove contact lenses and continue flushing with plenty of water for at least 15 minutes. Get medical attention if irritation persists.  
Skin Contact : Wash with soap and water. Get medical attention if irritation occurs. Wash clothing before reuse.  
Inhalation : If inhaled, remove to fresh air.  
Ingestion : Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If potentially dangerous quantities of this material have been swallowed, call a physician immediately.

## Section 5. Fire-fighting measures

<b>Auto-ignition temperature</b>	: Not available.
<b>Flash point</b>	: 40 °C (Closed cup)
<b>Flammable limits</b>	
<b>Upper:</b>	Not available.
<b>Lower:</b>	Not available.
<b>Products of combustion</b>	: Not available.
<b>Fire-fighting media and instructions</b>	: In case of fire, use water spray (fog), foam, dry chemical or CO <sub>2</sub> extinguisher or spray. Dyke area of fire to prevent runoff. Combustible liquid and vapour. May burn, but does not ignite readily. Under high temperatures or under moderate heating might release vapor in sufficient quantities to produce hazardous atmospheres with air.
<b>Special protective equipment for fire-fighters</b>	: Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Risk of explosion of the product in the presence of mechanical impact: Not available.	
Risk of explosion of the product in the presence of static discharge: Not available.	

## Section 6. Accidental release measures

<b>Personal Precautions</b>	: Ventilate area of leak or spill. Do not touch damaged containers or spilled material unless wearing appropriate protective equipment (Section 8). Stop leak if without risk. Prevent entry into sewers, water courses, basements or confined areas.
<b>Environmental precautions</b>	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
<b>Methods for cleaning up</b>	: If emergency personnel are unavailable, contain spilt material. For small spills, add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion-proof means to transfer material to a sealable, appropriate container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.--

## Section 7. Handling and storage

<b>Handling</b>	: Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Avoid breathing vapour or mist. Keep away from heat, sparks and flame. To avoid fire, minimise ignition sources. Wash thoroughly after handling.
<b>Storage</b>	: Keep out of the reach of children. Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Store between 0 and 50°C

## Section 8. Exposure controls, personal protection

<b>Engineering controls</b>	: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits. Provide eyewash and safety shower in area if contact or splash hazard exists.
<b>Personal protection</b>	
<b>Eyes</b>	: Use safety eyewear designed to protect against splash of liquids.
<b>Hands</b>	: For prolonged or repeated handling, use Impervious gloves.
<b>Skin</b>	: No protective equipment is needed under normal use conditions.
<b>Respiratory</b>	: Avoid breathing vapour or mist.
<b>Name</b>	<b>Exposure limits</b>

2-butoxyethanol	<b>ACGIH TLV (United States, 1/2004).</b> TWA: 20 ppm 8 hour(s). Form: All forms
ethanol	<b>ACGIH TLV (United States, 1/2004).</b> TWA: 1880 mg/m <sup>3</sup> 8 hour(s). Form: All forms TWA: 1000 ppm 8 hour(s). Form: All forms
methanol	<b>ACGIH TLV (United States, 1/2004). Skin</b> STEL: 328 mg/m <sup>3</sup> 15 minute/minutes. Form: All forms STEL: 250 ppm 15 minute/minutes. Form: All forms TWA: 262 mg/m <sup>3</sup> 8 hour(s). Form: All forms TWA: 200 ppm 8 hour(s). Form: All forms

## Section 9. Physical and chemical properties

Physical state	: Liquid. (Liquid.)
Colour	: Blue.
Odour	: Alcohol-like.
pH	: 7.75 (100%)
Boiling/condensation point	: 100 °C
Melting/freezing point	: Not available.
Specific gravity	: 0.98 (Water = 1)
Vapour pressure	: Not applicable.
Vapour density	: Not available.
Odour threshold	: Not available.
Evaporation rate	: Not available.
LogK <sub>ow</sub>	: Not available.

## Section 10. Stability and reactivity

Stability	: The product is stable.
Conditions of instability	: Not available.
Incompatibility with various substances	: Not available.
Hazardous Decomposition Products	: Not available.

## Section 11. Toxicological information

### Potential acute health effects

Eyes	: Irritating to eyes.
Skin	: Irritating to skin.
Inhalation	: Moderately irritating to the respiratory system.
Ingestion	: No known significant effects or critical hazards.
Irritancy of Product	: Hazardous by WHMIS criteria.

### Potential chronic health effects

Carcinogenic effects	: No known significant effects or critical hazards.
Mutagenic effects	: No known significant effects or critical hazards.
Teratogenic effects	: Hazardous by WHMIS criteria.
Reproductive effects	: No known significant effects or critical hazards.
Sensitization to Product	: No known significant effects or critical hazards.
Synergistic products (toxicologically)	: Not available.

### Toxicity data

<u>Ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
2-butoxyethanol	LD50	470 mg/kg	Oral	Rat
	LD50	300 mg/kg	Oral	Rabbit
	LD50	1200 mg/kg	Oral	Guinea pig
	LD50	220 mg/kg	Dermal	Rabbit
	LD50	7060 mg/kg	Oral	Rat
ethanol	LD50	6300 mg/kg	Oral	Rabbit
	LD50	3450 mg/kg	Oral	Mouse

methanol	LDLo	1400 mg/kg	Oral	human
	LDLo	5500 mg/kg	Oral	Dog
	LD50	5628 mg/kg	Oral	Rat
	LD50	14200 mg/kg	Oral	Rabbit
	LD50	7300 mg/kg	Oral	Mouse
	LD50	15800 mg/kg	Dermal	Rabbit
	LDLo	143 mg/kg	Oral	human
	LDLo	428 mg/kg	Oral	human
	LDLo	6422 mg/kg	Oral	man
	LDLo	393 mg/kg	Dermal	Monkey

**Target organs** : Contains material which causes damage to the following organs: blood, kidneys, the reproductive system, liver, lymphatic system, gastrointestinal tract, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

## Section 12. Ecological information

### Ecotoxicity data

<u>Ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
2-butoxyethanol	Lepomis macrochirus (LC50)	96 hour(s)	1490 mg/l
	Daphnia magna (EC50)	48 hour(s)	2 mg/l
ethanol	Daphnia magna (EC50)	48 hour(s)	9.3 mg/l
	Daphnia magna (EC50)	48 hour(s)	>100 mg/l
	Pimephales promelas (LC50)	96 hour(s)	>100 mg/l
	Daphnia magna (LC50)	96 hour(s)	>100 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	13000 mg/l
	Daphnia magna (EC50)	48 hour(s)	>10000 mg/l
	Oncorhynchus mykiss (EC50)	48 hour(s)	13200 mg/l
	Lepomis macrochirus (EC50)	48 hour(s)	16000 mg/l
	Pimephales promelas (LC50)	96 hour(s)	>100 mg/l
	Daphnia magna (LC50)	96 hour(s)	>100 mg/l
methanol	Lepomis macrochirus (LC50)	96 hour(s)	15400 mg/l

**Products of degradation** : These products are carbon oxides (CO, CO<sub>2</sub>) and water.

## Section 13. Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimised wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

**Consult your local or regional authorities.**

## Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Class	Packing group	Additional information
<b>TDG</b> Classification	UN1993	FLAMMABLE LIQUID, N.O.S. (ethanol)	3	III	<b><u>Explosive Limit and Limited Quantity Index</u></b> 450  <b><u>Passenger Carrying Road or Rail Index</u></b> 60  <b><u>Special provisions</u></b> 16

**APPLIES ONLY DURING ROAD TRANSPORT**

Any variation of the shipping description based on the packaging is not addressed.

## Section 15. Regulatory information

**WHMIS** : Class B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).  
Class D-2A: Material causing other toxic effects (Very toxic).  
Class D-2B: Material causing other toxic effects (Toxic).

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*.

## Section 16. Other information

**Date of issue** : 02-November-2005.  
**Responsible name** : Regulatory Affairs  
**Date of previous issue** : 02-November-2005.

### Notice to reader

The above information is believed to be correct with respect to the formula used to manufacture the product in the country of origin. As data, standards, and regulations change, and conditions of use and handling are beyond our control, NO WARRANTY, EXPRESS OR IMPLIED, IS MADE AS TO THE COMPLETENESS OR CONTINUING ACCURACY OF THIS INFORMATION.