

# Material Safety Data Sheet

## Émeraude

### 1 . Product and company identification

**Common name** : Émeraude  
**Material uses** : Window cleaner.  
**Supplier/Manufacturer** : V-TO Inc.  
 2975, Nelson  
 Saint-Hyacinthe  
 QC J2S 1Y5  
 Tél: (450) 774-6849  
 Fax:(450) 774-4334  
**In case of emergency** : CANUTEC (613) 996-6666 (Canada)  
**MSDS authored by:** : Kemika XXI Inc. + 1-450-435-7475 02/28/2006

### 2 . Hazards identification

**Physical state** : Liquid. (Clear.)  
**Odor** : Apple-like.  
**Color** : Green.  
**Hazard status** : This material is classified hazardous under OSHA regulations in the United States and the WHMIS Controlled Product Regulation in Canada.  
**Emergency overview** : WARNING!  
 MAY BE HARMFUL IF INHALED.  
 MAY CAUSE EYE AND SKIN IRRITATION.  
 Avoid contact with skin and clothing. Do not breathe vapor or mist. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.  
**Routes of entry** : Dermal contact. Eye contact. Inhalation. Ingestion.  
**Potential acute health effects**  
**Eyes** : Moderately irritating to eyes.  
**Skin** : Practically non-toxic in contact with skin. Moderately irritating to the skin.  
**Inhalation** : May be harmful by inhalation.  
**Ingestion** : Practically non-toxic if swallowed.  
**Potential chronic health effects** : Carcinogenic effects Classified A3 (Proven for animals.) by ACGIH [2-Butoxyethanol].  
 Classified 3 (Not classifiable for humans.) by IARC [2-Butoxyethanol].  
 Mutagenic effects Not available.  
 Teratogenic effects Not available.  
**Medical conditions aggravated by over-exposure** : Repeated or prolonged exposure is not known to aggravate any medical condition.  
 See toxicological information (section 11)

### 3 . Composition/information on ingredients

#### United States

Name	CAS number	%
2-Butoxyethanol	111-76-2	3 - 5

#### Canada

Name	CAS number	%
2-Butoxyethanol	111-76-2	3 - 5

## 4 . First aid measures

- Eye contact** : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
- Skin contact** : Wash with soap and water. Get medical attention if symptoms occur.
- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.
- Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
- Notes to physician** : No specific antidote. Medical staff must contact Poison Control Center.

## 5 . Fire-fighting measures

- Flammability of the product** : Non-flammable.
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : No specific hazard.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6 . Accidental release measures

- Personal precautions** : Use suitable protective equipment.
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
- Methods for cleaning up** : For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof 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.

## 7 . Handling and storage

- Handling** : Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Do not breathe vapor or mist. Wash thoroughly after handling.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area.

## 8 . Exposure controls/personal protection

### United States

**Product name**  
2-Butoxyethanol

**Exposure limits**  
**ACGIH TLV (United States, 1/2005).**  
 TWA: 20 ppm 8 hour(s). Form: All forms.  
**NIOSH REL (United States, 12/2001). Skin**  
 TWA: 24 mg/m<sup>3</sup> 10 hour(s). Form: All forms  
 TWA: 5 ppm 10 hour(s). Form: All forms  
**OSHA PEL (United States, 8/1997). Skin**  
 TWA: 240 mg/m<sup>3</sup> 8 hour(s). Form: All forms  
 TWA: 50 ppm 8 hour(s). Form: All forms

### Canada

**Product name**  
2-Butoxyethanol

**Exposure limits**  
**ACGIH TLV (United States, 1/2005).**  
 TWA: 20 ppm 8 hour(s). Form: All forms

- Engineering measures** : Use only with adequate ventilation.
- Personal protection**
- Eyes** : Safety glasses.
- Skin** : No special protective clothing is required.
- Respiratory** : Not required if handled in a ventilated enclosure.
- Hands** : Natural rubber (latex).



**HMIS Code/Personal protective equipment** : B

**Personal protection in case of a large spill** : Safety glasses, goggles or face shield. Impervious gloves. Full suit. Boots. Wear NIOSH-approved self-contained breathing apparatus or equivalent and full protective gear. Wash hands, forearms and face thoroughly after handling compounds and before eating, smoking and using the lavatory and at the end of the day. Follow good industrial hygiene practice.

## 9 . Physical and chemical properties

- Physical state** : Liquid. (Clear.)
- Color** : Green.
- Odor** : Apple-like.
- pH** : 6.8 [Neutral.]
- Boiling/condensation point** : Weighted average: 103.82°C (218.9°F)
- Melting/freezing point** : Weighted average: -4.1°C (24.6°F)
- Critical temperature** : The lowest known value is 367.9°C (694.2°F) (2-Butoxyethanol).
- Relative density** : 0.99 (Water = 1)
- Vapor pressure** : The highest known value is 2.3 kPa (17.5 mm Hg) (at 20°C) (Water).
- Vapor density** : 1 (Air = 1)
- Volatility** : 100% (v/v)
- Evaporation rate** : Weighted average: 0.34 compared with Butyl acetate.
- VOC** : 11 (%)
- Solubility** : Miscible in water.

## 10 . Stability and reactivity

- Stability and reactivity** : The product is stable.
- Incompatibility with various substances** : Reactive with oxidizing materials, acids and alkalis.
- Hazardous polymerization** : Will not occur.

## 11 . Toxicological information

### Toxicity data

Product/ingredient name	Test	Result	Route	Species
Émeraude	LD50	>13000 mg/kg	Oral	Rat
	LD50	>6000 mg/kg	Dermal	Rabbit
	LC50	>12500 ppm (4 hour(s))	Inhalation	Rat
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
	LC50	450 ppm (4 hour(s))	Inhalation	Rat

**Acute Effects**

- Eyes** : Moderately irritating to eyes.
- Skin** : Practically non-toxic in contact with skin. Moderately irritating to the skin.
- Inhalation** : May be harmful by inhalation.
- Ingestion** : Practically non-toxic if swallowed.
- Potential chronic health effects** : Carcinogenic effects Classified A3 (Proven for animals.) by ACGIH [2-Butoxyethanol].  
Classified 3 (Not classifiable for humans.) by IARC [2-Butoxyethanol].  
Mutagenic effects Not available.  
Teratogenic effects Not available.

**12 . Ecological information****Ecotoxicity data**

Product/ingredient name	Species	Period	Result
2-Butoxyethanol	Lepomis macrochirus (LC50)	96 hour(s)	1490 mg/l

- Environmental precautions** : No known significant effects or critical hazards.
- Products of degradation** : These products are carbon oxides and water.
- Toxicity of the products of biodegradation** : The products of degradation are less toxic than the product itself.

**13 . Disposal considerations**

- Waste disposal** : The generation of waste should be avoided or minimized 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.

**14 . Transport information**

**AERG** : Not applicable.

**Regulatory information**

**UN/ IMDG/IATA DOT/ TDG** : Not regulated.

**15 . Regulatory information****United States**

- HCS Classification** : Irritating material
- U.S. Federal regulations** : TSCA : All components listed.
- SARA 302/304/311/312 extremely hazardous substances: No products were found.
- SARA 302/304 emergency planning and notification: No products were found.
- SARA 302/304/311/312 hazardous chemicals: 2-Butoxyethanol
- SARA 311/312 MSDS distribution - chemical inventory - hazard identification:  
2-Butoxyethanol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard
- Clean Water Act (CWA) 307: No products were found.
- Clean Water Act (CWA) 311: No products were found.
- Clean Air Act (CAA) 112 accidental release prevention: No products were found.
- Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

**SARA 313**

	Product name	CAS number	Concentration
Form R - Reporting requirements	: 2-Butoxyethanol	111-76-2	3 - 5
Supplier notification	: 2-Butoxyethanol	111-76-2	3 - 5

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations	: Pennsylvania RTK: 2-Butoxyethanol: (environmental hazard, generic environmental hazard) Massachusetts RTK: 2-Butoxyethanol New Jersey: 2-Butoxyethanol California prop. 65: No products were found.
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**Canada**

WHMIS (Canada)	: Class D-2B: Material causing other toxic effects (Toxic).
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DSL : All components listed.

This product has been classified in accordance with the hazard criteria of the Canadian CPR and the United States OSHA. This MSDS contains all the information required by the CPR and OSHA, the American National Standard Institute (ANSI) Z400.1.

International lists	: This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).
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**16 . Other information**

Label requirements (U.S.A.)	: MAY BE HARMFUL IF INHALED. MAY CAUSE EYE AND SKIN IRRITATION.
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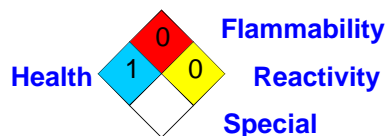
**Hazardous Material Information System (U.S.A.)**

HMIS RATING	
Health	1
Fire hazard	0
Physical Hazard	0
Personal protection	B

**HAZARD RATINGS**

4- Extreme  
3- Serious  
2- Moderate  
1- Slight  
0- Minimal

See section 8 for more detailed information on personal protection.

**National Fire Protection Association (U.S.A.)****References**

: ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. - Canada Gazette Part II, Vol. 122, No. 2. Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" - Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005.

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**Notice to reader**

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