

# Material Safety Data Sheet

## Liquid detergent ENVIROLAB 97

### 1. Product and company identification

<b>Product name</b>	: Liquid detergent ENVIROLAB 97
<b>Material uses</b>	: Liquid detergent.
<b>Supplier/Manufacturer</b>	: V-TO Inc. 2975, Nelson Saint-Hyacinthe QC J2S 1Y5 Tél: (450) 774-6849 Fax:(450) 774-4334
<b>Responsible name</b>	: Atrion Regulatory Services, Inc.
<b>In case of emergency</b>	: CANUTEC (613) 996-6666 (Canada)

### 2. Hazards identification

<b>Physical state</b>	: Liquid.
<b>Odor</b>	: Lavander
<b>OSHA/HCS status</b>	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
<b>Emergency overview</b>	: WARNING!  CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY BE HARMFUL IF SWALLOWED. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.  May be harmful if swallowed. Irritating to eyes, respiratory system and skin. Avoid exposure - obtain special instructions before use. Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Contains material that can cause target organ damage. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.
<b>Routes of entry</b>	: Dermal contact. Eye contact. Inhalation. Ingestion.
<b>Potential acute health effects</b>	
<b>Inhalation</b>	: Irritating to respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
<b>Ingestion</b>	: May be harmful if swallowed.
<b>Skin</b>	: Irritating to skin.
<b>Eyes</b>	: Irritating to eyes.
<b>Potential chronic health effects</b>	
<b>Chronic effects</b>	: Contains material that can cause target organ damage.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.
<b>Developmental effects</b>	: No known significant effects or critical hazards.
<b>Fertility effects</b>	: No known significant effects or critical hazards.
<b>Target organs</b>	: Contains material which causes damage to the following organs: upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea, stomach.
<b>Over-exposure signs/symptoms</b>	
<b>Inhalation</b>	: Adverse symptoms may include the following: respiratory tract irritation coughing
<b>Ingestion</b>	: No specific data.

## 2 . Hazards identification

- Skin** : Adverse symptoms may include the following:  
irritation  
redness
- Eyes** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Medical conditions aggravated by over-exposure** : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (section 11)

## 3 . Composition/information on ingredients

### United States

Name	CAS number	%
Dodecylbenzenesulfonic acid	27176-87-0	5 - 10
2-Aminoethanol	141-43-5	1 - 5
2-propanol, 1,1'-oxydi-	110-98-5	0.1 - 1

### Canada

Name	CAS number	%
Dodecylbenzenesulfonic acid	27176-87-0	5 - 10
Oleic Acid	112-80-1	1 - 5
2-Aminoethanol	141-43-5	1 - 5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

## 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.
- Skin contact** : Get medical attention if symptoms occur.
- Inhalation** : If inhaled in large quantity of concentrated form, remove to fresh air. Get medical attention if symptoms occur.
- Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

## 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.

## 5 . Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
 carbon dioxide  
 carbon monoxide  
 nitrogen oxides  
 sulfur oxides  
 metal oxide/oxides
- 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) 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 it to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

## 7 . Handling and storage

- Handling** : Do not ingest. Avoid contact with eyes. Keep container closed. Use only with adequate ventilation. Avoid breathing 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-Aminoethanol

**Exposure limits**  
**ACGIH TLV (United States, 1/2006).**  
 STEL: 15 mg/m<sup>3</sup> 15 minute(s).  
 TWA: 7.5 mg/m<sup>3</sup> 8 hour(s).  
**NIOSH REL (United States, 12/2001).**  
 STEL: 15 mg/m<sup>3</sup> 15 minute(s).  
 TWA: 8 mg/m<sup>3</sup> 10 hour(s).  
**OSHA PEL (United States, 11/2006).**  
 TWA: 6 mg/m<sup>3</sup> 8 hour(s).

### Canada

**Product name**  
2-Aminoethanol

**Exposure limits**  
**ACGIH TLV (United States, 1/2006).**  
 STEL: 15 mg/m<sup>3</sup> 15 minute(s).  
 TWA: 7.5 mg/m<sup>3</sup> 8 hour(s).

**Consult local authorities for acceptable exposure limits.**

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

## 8 . Exposure controls/personal protection

- Engineering measures** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Personal protection**
- Eyes** : Not required under normal conditions of use.
- Skin** : No special protective clothing is required.
- Respiratory** : A respirator is not needed under normal and intended conditions of product use.
- Hands** : Not applicable.
- HMIS Code/Personal protective equipment** : Not applicable.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9 . Physical and chemical properties

- Physical state** : Liquid.
- Odor** : Lavander
- pH** : 10 to 11

## 10 . Stability and reactivity

- Stability** : The product is stable.
- Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.
- Conditions to avoid** : No specific data.
- Materials to avoid** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Conditions of reactivity** : None known.

## 11 . Toxicological information

### Acute toxicity

Product/ingredient name	Species	Dose	Result	Exposure
2-propanol, 1,1'-oxydi-	Rabbit	>20 mL/kg	LD50 Dermal	-
	Rat	10 g/kg	LD50 Intraperitoneal	-
	Rat	5800 mg/kg	LD50 Intravenous	-
	Rat	14800 mg/kg	LD50 Oral	-
Dodecylbenzenesulfonic acid	Rat	650 mg/kg	LD50 Oral	-
	Rat	1720 mg/kg	LD50 Oral	-
2-Aminoethanol	Rabbit	1 mL/kg	LD50 Dermal	-
	Rat	225 mg/kg	LD50 Intravenous	-
	Rat	1720 mg/kg	LD50 Oral	-

- Inhalation** : Irritating to respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

## 11 . Toxicological information

- Ingestion** : May be harmful if swallowed.  
**Skin** : Irritating to skin.  
**Eyes** : Irritating to eyes.

## 12 . Ecological information

**Environmental effects** : No known significant effects or critical hazards.

### Aquatic ecotoxicity

Product/ingredient name	Test	Species	Exposure	Result
2-Aminoethanol	Mortality	Fish	96 hours	Acute LC50 2070 mg/L
	Mortality	Fish	96 hours	Acute LC50 329.16 mg/L
	Mortality	Fish	96 hours	Acute LC50 >300 mg/L
	Mortality	Fish	96 hours	Acute LC50 300 mg/L
	Mortality	Fish	96 hours	Acute LC50 >200 mg/L
	Mortality	Fish	96 hours	Acute LC50 150 mg/L

## 13 . Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14 . Transport information

**AERG** : Not applicable.

### Regulatory information

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

## 15 . Regulatory information

### United States

**HCS Classification** : Irritating material  
Target organ effects

**U.S. Federal regulations** : **United States inventory (TSCA 8b)**: 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**: Oleic Acid; 2-Aminoethanol;  
Dodecylbenzenesulfonic acid; 2-propanol, 1,1'-oxydi-

**SARA 311/312 MSDS distribution - chemical inventory - hazard identification**: Oleic Acid: Immediate (acute) health hazard, Delayed (chronic) health hazard; 2-Aminoethanol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard;  
Dodecylbenzenesulfonic acid: Immediate (acute) health hazard; 2-propanol, 1,1'-oxydi-: Immediate (acute) health hazard

**Clean Water Act (CWA) 307**: No products were found.

**Clean Water Act (CWA) 311**: Sodium hydroxide; Dodecylbenzenesulfonic acid; Sulphuric acid

**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.

## 15 . Regulatory information

- State regulations**
- Connecticut Carcinogen Reporting:** None of the components are listed.
  - Connecticut Hazardous Material Survey:** None of the components are listed.
  - Florida substances:** None of the components are listed.
  - Illinois Chemical Safety Act:** None of the components are listed.
  - Illinois Toxic Substances Disclosure to Employee Act:** None of the components are listed.
  - Louisiana Reporting:** None of the components are listed.
  - Louisiana Spill:** None of the components are listed.
  - Massachusetts Spill:** None of the components are listed.
  - Massachusetts Substances:** The following components are listed:  
Dodecylbenzenesulfonic acid;2-Aminoethanol
  - Michigan Critical Material:** None of the components are listed.
  - Minnesota Hazardous Substances:** None of the components are listed.
  - New Jersey Hazardous Substances:** The following components are listed:  
Dodecylbenzenesulfonic acid;2-Aminoethanol
  - New Jersey Spill:** None of the components are listed.
  - New Jersey Toxic Catastrophe Prevention Act:** None of the components are listed.
  - New York Acutely Hazardous Substances:** The following components are listed:  
Dodecylbenzenesulfonic acid
  - New York Toxic Chemical Release Reporting:** None of the components are listed.
  - Pennsylvania RTK Hazardous Substances:** The following components are listed:  
Dodecylbenzenesulfonic acid; Oleic Acid;2-Aminoethanol
  - Rhode Island Hazardous Substances:** None of the components are listed.

### California Prop. 65

**WARNING:** This product contains a chemical known to the State of California to cause cancer.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Sulphuric acid	Yes.	No.	No.	No.

### Canada

- WHMIS (Canada)**
- Class D-2A:** Material causing other toxic effects (Very toxic).
  - Class D-2B:** Material causing other toxic effects (Toxic).



- Canadian lists**
- CEPA Toxic substances:** None of the components are listed.
  - Canadian ARET:** None of the components are listed.
  - Canadian NPRI:** None of the components are listed.
  - Alberta Designated Substances:** None of the components are listed.
  - Ontario Designated Substances:** None of the components are listed.
  - Quebec Designated Substances:** None of the components are listed.

- Canada inventory**
- Canada inventory:** All components listed.

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.

### International regulations

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

## 16 . Other information

**Label requirements** : CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY BE HARMFUL IF SWALLOWED. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.

**Hazardous Material Information System (U.S.A.)** :

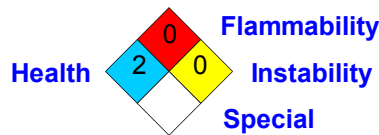
### HAZARD RATINGS

Health	*	2
Fire hazard		0
Physical Hazard		0
Personal protection		Not applicable

4- Extreme  
3- Serious  
2- Moderate  
1- Slight  
0- Minimal  
See section 8 for more detailed information on personal protection.

The customer is responsible for determining the PPE code for this material.

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



**References** : ANSI Z400.5, 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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