

## SAFETY DATA SHEET

### PRODUCT ETHYL ALCOHOL SDA-40B ANHYDROUS

## SECTION 1- IDENTIFICATION OF SUBSTANCE AND OF SUPPLIER

**Product name:** SDA-40B (95%) Specially Denatured Alcohol

**Other identifier:** Denatured alcohol, specially denatured alcohol, Ethanol denatured with tertiary butanol and denatonium benzoate

**Chemical family:** Alcohols, alkaloids

**Recommended use:** As a solvent in the manufacture of: cleaning solutions, cosmetics for external use, disinfectants, fungicides, insecticides, perfume materials and fixatives, pharmaceutical products for external use.

**Restrictions on use:** Refer to the alcohol control authority in country in which the product is to be used. Canada Revenue Agency (Excise) in Canada, US Tax and Trade Bureau in US etc.

**Manufacturer:** Kawartha Ethanol Inc.

**Address:** 6830 Hwy 7  
Havelock, ON, CAN K0L 1Z0

**Phone number:** (705) 778-1916

**EMERGENCY PHONE NUMBER: CANUTEC (613) 996-6666 (24 HOURS)**

## SECTION 2- HAZARDS IDENTIFICATION

### GHS Classification of substance or mixture

**Physical hazards:** Flammable liquids(Category 2)

**Health hazards:** Serious eye damage/eye irritation(Category 2B)  
Skin irritation (Category 2)  
Specific target organ toxicity – single exposure (Category 3)

**Environmental hazards:** Not classified

### GHS label elements, including precautionary statement

#### Label elements



**Signal word:** DANGER

**Hazard statement(s):**

H225 Highly flammable liquid and vapor.  
H315 + H320 Causes skin and eye irritation.  
H335 May cause respiratory irritation.

**Precautionary statement (s)**

P210 Keep away from heat, sparks, open flames, and hot surfaces. No smoking.  
P233 Keep container tightly closed.  
P313+P337 If eye irritation persists, get medical attention.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical, ventilating, and lighting equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P264 Wash hands after handling.  
P280 Wear protective gloves and eye and face protection.  
P303 + P361 + P353 **IF ON SKIN** (or hair): Remove immediately all contaminated clothing. Rinse skin with water.  
P305 + P351 + P338 **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.  
P403 + P235 Store in a well-ventilated place. Keep cool.  
P501 Dispose of contents and container to an approved waste disposal plant.

**Other hazards:**

**Potential health effects:**

Source of entry	Description
Eyes	Can Cause eye irritation. Common symptoms include stinging, tearing, and redness
Ingestion	Can cause gastrointestinal irritation with nausea, vomiting and diarrhea. Systematic toxicity and acidosis can occur. Advanced stages can lead to respiratory failure, kidney failure, coma and death.
Inhalation	Causes respiratory tract irritation. Can cause narcotic effects in high concentration. Vapors may cause dizziness or suffocation. Systemic toxicity and acidosis can occur. Advanced stages can lead to respiratory failure, kidney failure, coma and death.
Skin	Causes moderate skin irritation. Can cause dermatitis by de-fatting the skin from prolonged or repeated contact.

**Supplemental information:** Not applicable.

## SECTION 3- COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	% volume	CAS No	Einecs No
Ethyl Alcohol	99.8	64-17-5	200-578-6
Tertiary Butyl Alcohol	0.125	75-65-0	200-889-7
Denatonium benzoate	0.47 g/100 L	3734-33-6	223-095-2

## SECTION 4- FIRST AID MEASURES

### Description of first aid measures

#### General advice:

Never give anything by mouth to an unconscious person. If feeling unwell seek medical advice (show the label where possible).

#### Inhalation:

Move to fresh air. If breathing is difficult give oxygen. If not breathing give artificial respiration. Seek medical attention immediately.

#### Skin contact:

Remove contaminated clothing and shoes under running water. Flush skin with plenty of water for at least 20 minutes. Wash contaminated clothing before re-use or discard. If skin irritation persists, seek medical attention.

#### Eye contact:

Immediately flush eyes with water for at least 20 minutes, holding the eyelids open. If eye irritation persists, seek medical attention.

#### Ingestion:

DO NOT INDUCE VOMITING. If vomiting occurs, keep head low so stomach contents do not aspirate into lungs. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious or convulsing person. Have victim drink 250 mL of water to dilute material in stomach, when possible. Seek medical attention immediately.

#### Notes to physician:

Symptoms of ethanol intoxication vary with the alcohol level of the blood. Mild alcohol intoxication occurs at blood levels between 0.05-0.15% and approximately 25% of individuals will show signs of intoxication at these levels. Above 0.15% the person is definitely under the influence of ethanol and 50-95 of individuals at this level are clinically intoxicated. Severe poisoning occurs when the ethanol level is 0.3-0.5%. Above 0.5% the individual will be comatose and death can occur. The unabsorbed ethanol should be removed by gastric lavage after intubating the patient to prevent aspiration. Avoid the use of depressant drugs or the excessive administration of fluids. This product contains additional ingredients in low amount and relatively low toxicity: **tert-butanol and denatonium benzoate**

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THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BASED UPON DATA BELIEVED TO BE CORRECT. HOWEVER, NO GUARANTEE OR WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, IS MADE WITH RESPECT TO INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN.

## SECTION 5- FIRE FIGHTING MEASURES

### Extinguishing media

#### Suitable extinguishing media:

Apply alcohol-type or all-purpose-type foams by manufacturers' recommended techniques for large fires. Use carbon dioxide (CO<sub>2</sub>) or dry chemical media for small fires. Water is generally unsuitable for large pools of alcohol and may help to spread the fire.

**Unusual fire and explosion hazards:**

Vapors form from this product may travel or be moved by air currents and ignited by pilot lights, other flames, sparks, heater, electrical equipment, static discharges or other ignition sources at locations distant from handling point.

**Special protective equipment and precautions for firefighters:**

Use water spray to cool fire-exposed containers and structures. Use water spray to disperse vapours; reignition is possible. Use self-contained breathing apparatus and protective clothing.

## **SECTION 6- ACCIDENTAL RELEASE MEASURES**

**Spill:**

Contain spilled material. Provide adequate ventilation. Provide adequate personnel protective equipment for responders. Remove sources of heat, sparks or flames. Spill should be collected in suitable containers or absorbed on a suitable absorbent material for subsequent disposal. Such containers used to contain spilled material and absorbent should be sealed off, otherwise the collected alcohol will evaporate from them.

**Waste Disposal:**

Waste material should be disposed of in an approved incinerator or in a designated landfill site, in compliance with all federal, provincial and local government regulations.

## **SECTION 7- HANDLING AND STORAGE**

**Handling and storage****Precautions for safe handling:**

Keep away from heat, sparks and flames. Keep container closed when not in use. Use with adequate ventilation. Avoid breathing vapours. Avoid contact with eyes and skin. Wash exposed skin thoroughly after handling. Take precautions to prevent static electricity build-up when transferring contents.

**Other precautions:**

Good personal hygiene practices are suggested, such as abstaining from eating, drinking and smoking in the workplace.

## **SECTION 8- EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Respiratory protection:**

Up to 1000 ppm, an approved organic vapour cartridge respirator can be used. For concentrations above 1000 ppm, an air-supplying respirator is recommended. The user should consult a respirator guide, such as the Canadian Standards Association's guide Z94.4-M1982.

**Ventilation:**

The ventilation system should be non-sparkling, grounded and separate from other exhaust ventilation systems. Local ventilation is recommended when handling.

**Protective gloves:**

Neoprene, butyl or natural rubber.

**Eye protection:**

Chemical resistant monogoggles when handling.

**Other protective equipment**

Eye bath, safety shower and other protective equipment as required.

## SECTION 9- PHYSICAL AND CHEMICAL PROPERTIES

<b>Formula:</b>	Ethanol $\text{CH}_3 - \text{CH}_2 - \text{OH}$ ; Tertiary butyl alcohol $(\text{CH}_3)_3\text{COH}$ ; Denatonium benzoate $\text{C}_{28}\text{H}_{34}\text{N}_2\text{O}_3$ ; water $\text{H}_2\text{O}$
<b>Molecular weight:</b>	Ethanol 46.07; Tertiary butyl alcohol 74; denatonium benzoate 446.57; water 18.02
<b>Appearance:</b>	Colorless liquid
<b>Odour:</b>	Typical alcohol/ lower alcohol odour
<b>Odour thresholds:</b>	Approximately 0.1 to 5100 ppm for ethyl alcohol as reported in appendix 1 of the Canadian Standards Association guide Z94.4-M1982.
<b>pH:</b>	Not applicable
<b>Color:</b>	Colorless
<b>Melting/freezing point:</b>	-100 °C (-148 °F)
<b>Boiling point at 760mm Hg:</b>	78.33 for 100% ethanol
<b>Flash point:</b>	16 °C (Tag closed cup, ASTM D56)
<b>Evaporation rate:</b>	1.7 (butyl acetate = 1)
<b>Lower flammability:</b>	3.3% v/v for 100% ethanol, 2.4% v/v for 100% Tertiary Butyl Alcohol
<b>Upper flammability:</b>	19% v/v for 100% ethanol, 8% v/v for 100% Tertiary Butyl Alcohol
<b>Vapor pressure:</b>	5.87 KPA at 20°C for 100% Ethanol, 4.13 KPA at 20°C for Tert butyl alcohol
<b>Vapor density:</b>	1.59 (air=1)
<b>Relative density (liquid):</b>	0.8104 at 20°C
<b>Miscibility In water:</b>	Completely soluble
<b>Partition coefficient N-octanol/water:</b>	0.032 approx.
<b>Auto-ignition temperature:</b>	Approx. 370°C
<b>Decomposition temperature:</b>	Specific data not available
<b>Viscosity:</b>	Approx. 1.35 cp at 20°C
<b>Coefficient of water/oil distribution ethanol:</b>	Separates from oil.
<b>% Volatiles by volume</b>	100

## SECTION 10- STABILITY AND REACTIVITY

**Chemical stability and reactivity:** Stable under normal conditions

**Incompatibility:** Oxidizing materials

**Conditions to avoid:** Sources of ignition

**Hazardous combustion or decomposition products:**

Burning can produce carbon monoxide and/or carbon dioxide and/or formaldehyde.

**Hazardous polymerization:**

Will not occur

**Conditions to avoid:** None currently known

## SECTION 11- TOXICOLOGICAL INFORMATION

Ingredient	% V/V	TLV, ppm	LC50, ppm/4h	LD, mg/kg	LD50, mg/kg
			rat, inhal.	rat, oral	rabbit, skin
Ethyl Alcohol	94.88	1000	31,623	7,060	20,000
Tertiary Butyl Alcohol	0.125	100	NA	3,500	NA
Denatonium benzoate	0.47g/100 L	NA	NA	584 mg/kg	NA
Water	Balance	NA	NA	NA	NA

References: ACGIH (1988-1989), RTECS (1983), MacFarlan Smith Ltd. (1986), Parke Davis Co. (1978)

### **Ingestion:**

May cause dizziness, faintness, drowsiness, decreased awareness and responsiveness, euphoria, cyanosis, narcosis and respiratory paralysis, abdominal discomfort, nausea, vomiting, staggering gait, lack of coordination and coma.

### **Skin absorption:**

No adverse effects with normal skin. However, potentially harmful amounts of materials may be absorbed across markedly abraded skin when contact is sustained, particularly in children.

### **Inhalation:**

High vapour concentrations may cause a burning sensation in the throat and nose, stinging and water in the eyes. At concentrations which cause irritation, dizziness, faintness, drowsiness, nausea and vomiting may occur.

### **Skin contact:**

Mild irritant. Repeated or prolonged exposure may lead to dermatitis, erythema and scaling.

### **Eye contact:**

Severe eye irritant. Vapors can irritate eyes. Eye damage from contact with liquid is reversible and proper treatment will result in healing within a few days.

### **Effects of long-term exposure:**

Long term repeated oral exposure to ethanol may result in the development of progressive injury with fibrosis.

### **Medical conditions aggravated by overexposure:**

Repeated exposure to ethanol may exacerbate liver injury produced from other causes.

### **Other-reproductive toxicity of ethanol when consumed as a beverage during pregnancy:**

Ethanol has been identified in studies as a developmental toxicant when consumed as a beverage during pregnancy.

### **Other:**

Tertiary Butanol is a known animal carcinogen. It has no confirmed teratogenic, mutagenic, or reproductive effects in humans. No data available to designate product as an aspiration hazard or cause specific organ toxicity through repeated exposure.

## SECTION 12- ECOLOGICAL INFORMATION

### Ethyl alcohol CAS 64-17-5

#### **Ecotoxicity (aquatic and terrestrial, where available):**

##### **Acute fish toxicity (ethanol)**

LC50 / 96-hour *Oncorhynchus mykiss* (rainbow trout) > 10,000 mg/L

LC50 / 96-hour *Pimephales promelas* (fathead minnow) > 13,400 mg/L

##### **Toxicity to aquatic plants (Ethanol):**

Growth inhibition / 96 hours *Chlorella vulgaris* (Fresh water algae) 1000 mg/L

##### **Toxicity to microorganisms (Ethanol):**

Toxicity threshold / *Pseudomonas putida* 6,500 mg/L

Summary: inhibition of cell multiplication begins.

##### **Persistence and degradability:**

Biodegradation is expected

##### **Bio accumulative potential:**

Bioaccumulation is unlikely

##### **Other adverse effects:**

BOD: 740-840 mg/g

### Denatonium benzoate CAS 3734-33-6

#### **Ecotoxicity (aquatic and terrestrial, where available):**

##### **Acute fish toxicity (Denatonium benzoate)**

LC50 / 96-hour rainbow trout > 1000 mg/L

##### **Persistence and degradability:**

No data available

##### **Bio accumulative potential:**

Bioaccumulation is unlikely

##### **Other adverse effects:**

No data available

### Tertiary Butyl Alcohol CAS 75-65-0

#### **Ecotoxicity (aquatic and terrestrial, where available):**

##### **Acute fish toxicity (tert-Butyl Alcohol)**

LC50/ 96 h *Pimephales promelas* (fathead minnow) – 6,140 mg/L

##### **Toxicity to Aquatic Plants (tert-Butyl Alcohol)**

Growth inhibition/ 96-hour *Chlorella vulgaris* (Fresh water algae) – 1,000 mg/L

##### **Persistence and degradability:**

Biodegradability: Zahn-Wellens Test Result: > 99.9 % - Readily biodegradable

**Bioaccumulative potential:**

Does not bioaccumulate

**Other adverse effects:**

No data available.

## SECTION 13- DISPOSAL CONSIDERATIONS

**Spill:**

Contain spilled material. Provide adequate ventilation and protective equipment. Remove sources of heat, sparks or flames. Spill should be collected in suitable containers or absorbed on a suitable absorbent material for subsequent disposal.

**Waste disposal:**

Waste material should be disposed of in an approved incinerator or in a designated landfill site, in compliance with all federal, provincial and local governments regulations.

## SECTION 14- TRANSPORT INFORMATION

### Transportation of Dangerous Goods (TDG – Canada)

**Basic shipping requirements:**

**UN Number:** UN#: 1987

**Shipping Name:**

**Air:** Alcohols n.o.s. (Ethanol)

**Ground:** ALCOHOLS N.O.S.

**Primary Class:** 3

**Class Name:** Flammable Liquid

**Subsidiary Class:** None

**Packing group (if applicable):** II

**IMDG**

UN Number: UN#: 1987; Class: 3; Packing group: II

EMS-No: F-E, S-D

Proper shipping name: ALCOHOLS, N.O.S. (Ethanol, Butanols)

Marine pollutant: No

**IATA**

UN-Number: 1987; Class: 3; Packing group: II

Proper shipping name: ALCOHOLS, N.O.S. (Ethanol, Butanols)

## SECTION 15- REGULATORY INFORMATION

All ingredients are on the following inventories or are exempted from listing:

**Country notification**

Australia AICS

Canada DSL

China IECS



European Union	EINECS
Japan	ENCS/ISHL
Korea	ECL
New Zealand	NZloc
Philippines	PICCS
USA	TSCA

### **California Prop 65 Components**

WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm when drunk as a beverage: (Ethyl alcohol) CAS No. 64-17-5. Date: December 11, 2009.

## **SECTION 16- OTHER INFORMATION**

SDS created: November 04, 2021

### **Statement:**

The information above relates to this specific material. It may not be valid for this material if used in combination with any other materials or any process. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for his/her own particular use. All materials may present unknown hazards and should be used with caution although certain hazards are described herein, we cannot guarantee these are the only hazards that exist. We make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. In no event shall Kawartha Ethanol Inc. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Kawartha Ethanol Inc. has been advised of the possibility of such damages.