Ethanol

Product may be imported into Canada, or sourced domestically, and subsequently furnished into Canada By Dustronics Inc..

PRODUCT SUPPLIED BY / PRODUIT FOURNI PAR

Dustronics Inc.
18-10 Bramhurst Ave
Brampton, Ontario
L6T 5H1
416-880-6772

WHMIS Number : 00084384
Index : BRC3525/21D
Effective Date : 2025-06-30
Date of Revision :
Website : www.dustronics.com

1. Identification

Product Identifier	Ethanol
Synonyms and other means of identification	Denatured alcohol, specially denatured alcohol, Ethanol denatured with tertiary butanol and denatonium benzoate.
Recommended Uses	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 Uses	Not intended for human consumption.
Initial Supplier	*Kawartha Ethanol Inc.* *6830, Route 7* *Havelock, Ontario* *K0L 1Z0*

DUSTRONICS INC.

EMERGENCY TELEPHONE NUMBER (For Emergencies Involving Chemical Spills or Releases)

416-880-6772

NUMÉRO DE TÉLÉPHONE D'URGENCE (pour les urgences impliquant des rejets ou des déversements chimiques)

READ THE ENTIRE SAFETY DATA SHEET (SDS) FOR THE COMPLETE HAZARD EVALUATION OF THIS PRODUCT.

LIRE LA FICHE DE DONNÉES DE SÉCURITÉ (FDS) POUR UNE ÉVALUATION COMPLÈTE DES DANGERS QUE REPRÉSENTE CE PRODUIT

SAFETY DATA SHEET

PRODUCT
ETHYL ALCOHOL ANHYDROUS

SECTION 1- IDENTIFICATION OF SUBSTANCE AND OF SUPPLIER

Product name: Ethanol (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 between0.05-0.15% 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**

THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BASED UPON DATA BELIEVED TO BE CORRECT. HOWEVER, NO GUARATEE 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_2) 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 requlations.

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

Formula: Ethanol $CH_3 – CH_2 – OH$; Tertiary butyl alcohol (CH3)3-COH; Denatonium benzoate C28H34N2O3; water H2O
Molecular weight: Ethanol 46.07; Tertiary butyl alcohol 74; denatonium benzoate 446.57; water 18.02
Appearance: Colorless liquid
Odour: Typical alcohol/ lower alcohol odour
Odour thresholds: Approximately 0.1 to 5100 ppm for ethyl alcohol as reported in appendix 1 of the Canadian Standards Association guide Z94.4-M1982.
pH: Not applicable
Color: Colorless
Melting/freezing point: -100 °C (-148 °F)
Boiling point at 760mm Hg: 78.33 for 100% ethanol
Flash point: 16 °C (Tag closed cup, ASTM D56)
Evaporation rate: 1.7 (butyl acetate = 1)
Lower flammability: 3.3% v/v for 100% ethanol, 2.4% v/v for 100% Tertiary Butyl Alcohol
Upper flammability: 19% v/v for 100% ethanol, 8% v/v for 100% Tertiary Butyl Alcohol
Vapor pressure: 5.87 KPA at 20°C for 100% Ethanol, 4.13 KPA at 20°C for Tert butyl alcohol
Vapor density: 1.59 (air=1)
Relative density (liquid): 0.8104 at 20°C
Miscibility In water: Completely soluble
Partition coefficient N-octanol/water: 0.032 approx.
Auto-ignition temperature: Approx. 370°C
Decomposition temperature: Specific data not available
Viscosity: Approx. 1.35 cp at 20°C
Coefficient of water/oil distribution ethanol: Separates from oil.
% Volatiles by volume 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 re-productive 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	NZIoc
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: June 30, 2025

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.