



Issuing Date 22-Jun-2010

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Revision Number 1

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

**Product Name** Alcohol, SDA 3C  
**Product Code(s)** E402  
**Recommended Use** For Further Manufacturing Use Only  
Not for Human or Animal Drug Use

**Company**  
AMRESKO, LLC  
6681 Cochran Road  
Solon, Ohio 44139

**Emergency Telephone Number** Chemtrec 1-800-424-9300

**Company Phone Number** 1-800-448-4442  
**E-mail Address** info@amresco-inc.com

2. HAZARDS IDENTIFICATION

**GHS - Classification**

**Classification** Flammable Liquid 2 Skin Irritant 2 Eye Irritant 2 Specific Target Organ Toxicity (Single) 3

**Signal Word** Danger



**Hazard Statements** H225 - Highly flammable liquid and vapor H315 - Causes skin irritation H319 - Causes serious eye irritation H336 - May cause drowsiness and dizziness H303 - May be harmful if swallowed H313 - May be harmful in contact with skin H333 - May be harmful if inhaled

**Precautionary Statements** P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking P280 - Wear protective gloves/protective clothing/eye protection/face protection P261 - Avoid breathing dust/fume/gas/mist/vapors/spray P302+ P352 - IF ON SKIN: Wash with plenty of soap and water P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	EC No.	REACH Reg. No.	CAS-No	Weight %	Classification
Ethanol	200-578-6	Not available	64-17-5	93-98	F; R11
Isopropyl Alcohol	EEC No. 200-661-7	Not available	67-63-0	2-7	F; R11 Xi; R36 R67

### 4. FIRST AID MEASURES

**Eye Contact** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**Skin Contact** Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.

**Inhalation** Move to fresh air. If breathing becomes difficult, give oxygen.

**Ingestion** Clean mouth with water and afterwards drink plenty of water.

**Notes to Physician** Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Flammable Properties** Flammable liquid.

**Flash Point** 17 °C

**Suitable Extinguishing Media** Dry chemical, CO2, appropriate foam.

**Hazardous Combustion Products** Carbon oxides.

**Explosion Data**

**Sensitivity to Mechanical Impact** Not sensitive.

**Sensitivity to Static Discharge** Not sensitive.

**Protective Equipment and Precautions for Firefighters** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions** Avoid contact with skin, eyes and clothing. Use personal protective equipment. Ensure adequate ventilation.

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Cleaning Up** Cover with dry lime or soda ash. Use non-sparking tools and equipment. Pick up and transfer to properly labeled containers. Ventilate area and wash spill site after material pickup is complete.

**7. HANDLING AND STORAGE**

**Handling** Handle in accordance with good industrial hygiene and safety practice. Protect from moisture. Keep away from sources of ignition-no smoking.

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Handle under nitrogen and protect from moisture. Keep away from sources of ignition-no smoking.

**Incompatible Products** Strong oxidizing agents. Acid chlorides. Alkali metals. Metal hydrides. Hydrazine.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethanol 64-17-5	1000 ppm STEL	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>
Isopropyl Alcohol 67-63-0	400 ppm STEL TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m <sup>3</sup>	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m <sup>3</sup> STEL: 500 ppm STEL: 1225 mg/m <sup>3</sup>

**Engineering Measures** Showers  
 Eyewash stations  
 Ventilation systems.

**Personal Protective Equipment**

**Eye/Face Protection**

Tightly fitting safety goggles.

**Skin and Body Protection**

Wear protective gloves/clothing.

**Respiratory Protection**

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	Clear,colorless	
<b>Odor</b>	No information available	
<b>Odor Threshold</b>	No information available	
<b>Decomposition Temperature °C</b>	No information available	
<b>Freezing Point</b>	No information available	
<b>Initial Boiling Point</b>	No information available	
<b>Physical State</b>	Liquid	
<b>pH</b>	No data available	
<b>Flash Point</b>	17 °C	
<b>Flammable Properties</b>	Flammable liquid.	
<b>Autoignition Temperature</b>	No data available	
<b>Boiling Point/Range</b>	No data available	
<b>Melting Point/Range</b>	No data available	
<b>Flammability Limits in Air</b>	<b>Upper</b> No data available	<b>Lower</b> No data available
<b>Explosive Properties</b>	No information available	
<b>Oxidizing Properties</b>	No information available	
<b>Evaporation Rate</b>	No data available	
<b>MMHG @ 37.8 C</b>	No data available	
<b>Vapor Density</b>	No data available	
<b>Specific Gravity</b>	No data available	
<b>Solubility</b>	No information available	
<b>Partition Coefficient (n-octanol/water)</b>	No data available	
<b>Viscosity</b>	No information available	

**10. STABILITY AND REACTIVITY**

<b>Stability</b>	Stable under recommended storage conditions.
<b>Incompatible Products</b>	Strong oxidizing agents. Acid chlorides. Alkali metals. Metal hydrides. Hydrazine.
<b>Conditions to Avoid</b>	Protect from moisture. Keep away from sources of ignition-no smoking.
<b>Hazardous Decomposition Products</b>	Carbon oxides.
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.

**11. TOXICOLOGICAL INFORMATION**

Acute Toxicity

**Product Information** Irritating to eye, skin and respiratory system. May be harmful by inhalation, ingestion, or skin absorption. May cause drowsiness and dizziness. May cause damage to organs.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethanol	7060 mg/kg ( Rat )		124.7 mg/L ( Rat ) 4 h
Isopropyl Alcohol	4396 mg/kg ( Rat )	12870 mg/kg ( Rabbit ) 12800 mg/kg ( Rat )	72.6 mg/L ( Rat ) 4 h

Chronic Toxicity

**Chronic Toxicity** No known effect based on information supplied.

**Carcinogenicity** Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage. Isopropyl alcohol considered carcinogen during manufacture process using strong acids.

Chemical Name	ACGIH	IARC	NTP	OSHA
Ethanol		Group 1	Known	X
Isopropyl Alcohol		Group 1		X

**Target Organ Effects** Liver, Kidneys, Central nervous system (CNS).

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Ethanol		LC50 13400 - 15100 mg/L Pimephales promelas 96 h LC50 > 100 mg/L Pimephales promelas 96 h LC50 12.0 - 16.0 mL/L Oncorhynchus mykiss 96 h		EC50 = 10800 mg/L 24 h EC50 = 9268 mg/L 48 h
Isopropyl Alcohol	EC50 > 1000 mg/L 72 h EC50 > 1000 mg/L 96 h	LC50 > 1400000 µg/L Lepomis macrochirus 96 h LC50 = 11130 mg/L Pimephales promelas 96 h LC50 = 9640 mg/L Pimephales promelas 96 h		
<b>Chemical Name</b>			<b>Log Pow</b>	
Ethanol			-0.32	

**13. DISPOSAL CONSIDERATIONS**

**Waste Disposal Method** Dispose of material in accordance with all federal, state, and local regulations.

**Contaminated Packaging** Dispose of in accordance with all federal, state and local regulations.

**14. TRANSPORT INFORMATION**

**IATA**

UN-No 1170  
 Proper Shipping Name ETHANOL SOLUTION  
 Hazard Class 3  
 Packing Group II

**DOT**

Proper Shipping Name ETHANOL SOLUTION  
 Hazard Class 3  
 UN-No 1170  
 Packing Group II

**15. REGULATORY INFORMATION**

**REACH Title VII Restrictions** No information available.

Chemical Name	Dangerous Substances	Organic Solvents	Harmful Substances Whose Names Are to be Indicated on the Label	Pollution Release and Transfer Registry (Class II):	Pollution Release and Transfer Registry (Class I):	Poison and Deleterious Substances Control Law:
Ethanol	X	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Isopropyl Alcohol	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Component	ISHA - Harmful Substances Prohibited for Manufacturing, Importing, Transferring, or Supplying	ISHA - Harmful Substances Requiring Permission	Toxic Chemical Classification Listing (TCCL) - Toxic Chemicals	Toxic Release Inventory (TRI) - Group I	Toxic Release Inventory (TRI) - Group II	
Ethanol 64-17-5 ( 93-98 )	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Isopropyl Alcohol 67-63-0 ( 2-7 )	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

**International Inventories**

TSCA Complies  
 EINECS/ELINCS Complies  
 ENCS Complies  
 IECS Complies  
 KECL Does not Comply  
 PICCS Complies  
 AICS Complies

**U.S. Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	No
<b>Fire Hazard</b>	Yes
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

**Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

**CERCLA**

**U.S. State Regulations**

**California Proposition 65**

Ethyl alcohol is only a considered a Proposition 65 developmental hazard when it is ingested as an alcoholic beverage.

Chemical Name	CAS-No	California Prop. 65
Ethanol	64-17-5	Carcinogen Developmental

**U.S. State Right-to-Know Regulations**

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Ethanol	X	X	X		X
Isopropyl Alcohol	X	X	X		X

**International Regulations**

**Mexico - Grade**

Chemical Name	Carcinogen Status	Exposure Limits
Ethanol		Mexico: TWA 1000 ppm Mexico: TWA 1900 mg/m <sup>3</sup>
Isopropyl Alcohol		Mexico: TWA 400 ppm Mexico: TWA 980 mg/m <sup>3</sup>

**Canada**

**WHMIS Hazard Class**

B2 Flammable liquid  
 D2B Toxic materials



## 16. OTHER INFORMATION

**Issuing Date** 22-Jun-2010

**Revision Date** 26-Jul-2012

**Revision Note**  
No information available

**Recommended Restrictions** No information available

### Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of MSDS**