

## **Ethanol SDA 40-2 200 proof**

Version 1.01

Revision Date 02.10.2007

# **Material Safety Data Sheet**

## **SECTION 1 Identification of the substance/preparation and of the company/undertaking**

<b>Trade name</b>	Ethanol SDA 40-2 200 proof		
<b>Synonyms</b>	Ethanol SDA 40-2 200 proof, Ethanol SDA 40-2 / Denatured Alcohol		
<b>Company</b>	Sasol Chemicals North America LCC 900 Threadneedle, Suite 100 Houston, Texas 77079-2990 USA		
<b>Telephone</b>	CHEMTREC North America Transport Emergency (24-hr)	(800) 424-9300	
	CHEMTREC World Wide Transport Emergency (24-hr)	(703) 527-3887	
	MSDS and Product Information (8:00am-4:30pm CST)	(281) 588-3315	
	Sasol LCCC Main Gate Guard	(337) 494-5142	

## **SECTION 2 Hazards identification**

### **Emergency Overview**

<b>Danger</b>	Highly flammable.
<b>State of matter</b>	liquid clear
<b>Odour</b>	alcoholic

### **Potential environmental effects**

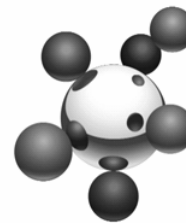
<b>Environmental precautions</b>	Should not be released into the environment. Prevent further leakage or spillage if safe to do so.
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Ecological information: See chapter 12

### **Potential health effects**

#### **Acute effects**

<b>Eyes</b>	Causes eye irritation.
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**Skin** Prolonged or repeated skin contact with liquid may cause defatting resulting in drying, redness and possible blistering.

**Inhalation** May cause respiratory tract irritation.

**Ingestion** Aspiration hazard if swallowed - can enter lungs and cause damage.

Toxicological information: See chapter 11

### SECTION 3 Composition/information on ingredients

**Components**

ethanol; ethyl alcohol

**CAS-No.**

64-17-5

**Weight %**

99.90

Exposure limit(s): See chapter 8

Classification and hazard labelling: See chapter 15

### SECTION 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 while removing all contaminated clothes and shoes. Wash contaminated clothing before re-use. If skin irritation persists, call a physician.

**Inhalation** Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.

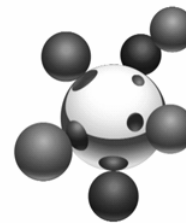
**Ingestion** If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

### SECTION 5 Fire-fighting measures

**Flammability**

**Flash point** 13 °C

**Autoignition temperature** ca. 400 °C



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<b>Explosion limits</b>	<b>Lower explosion limit:</b> 4 %(V) <b>Upper explosion limit:</b> 20 %(V)
<b>Fire/explosion</b>	Flash back possible over considerable distance.
<b>Hazardous combustion products</b>	Carbon oxides
<b>Suitable extinguishing media</b>	Water spray Alcohol-resistant foam Dry chemical Carbon dioxide (CO <sub>2</sub> )
<b>Protection measures and instructions</b>	Wear self-contained breathing apparatus and protective suit.
<b>Further information</b>	Cool containers / tanks with water spray.

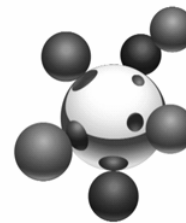
## SECTION 6 Accidental release measures

<b>Personal precautions</b>	Keep people away from and upwind of spill/leak. Remove all sources of ignition. Do not breathe vapours or spray mist. Material can create slippery conditions.
<b>Environmental precautions</b>	Should not be released into the environment. Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Soak up with inert absorbent material and dispose of as hazardous waste.

Exposure controls / personal protection: See chapter 8

## SECTION 7 Handling and storage

<b>Safe handling advice</b>	Provide sufficient air exchange and/or exhaust in work rooms. Wear personal protective equipment. Ensure all equipment is electrically grounded before beginning transfer operations. Take precautionary measures against static discharges.
<b>Advice on protection against fire and explosion</b>	Use explosion-proof equipment.
<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place.



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### SECTION 8 Exposure controls / personal protection

#### Engineering measures

Provide sufficient air exchange and/or exhaust in work rooms.

#### Personal protective equipment

**Eyes** Safety glasses with side-shields

**Skin** Protective suit Safety shoes

**Inhalation** In case of insufficient ventilation, wear suitable respiratory equipment.

#### **Hand protection**

**Hygiene measures** Wash hands before breaks and immediately after handling the product.

**Protective measures** Wear suitable protective equipment.

#### Exposure Guidelines

<u>Components</u>	<u>Exposure limit(s)</u>
ETHANOL	US. ACGIH Threshold Limit Values Time Weighted Average (TWA): 1,000 ppm
ETHYL ALCOHOL	US. NIOSH: Pocket Guide to Chemical Hazards Recommended exposure limit (REL): 1,000 ppm (1,900 mg/m <sup>3</sup> )
	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) PEL: 1,000 ppm (1,900 mg/m <sup>3</sup> )
ETHYL ALCOHOL; ETHANOL	US. OSHA Table Z-1-A (29 CFR 1910.1000) Time Weighted Average (TWA): 1,000 ppm (1,900 mg/m <sup>3</sup> )
	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants Time Weighted Average (TWA) Permissible Exposure Limit (PEL): 1,000 ppm (1,900 mg/m <sup>3</sup> )

PEL= Permissible Exposure Limits  
TLV= Threshold Limit Value  
EL= Excursion Limit

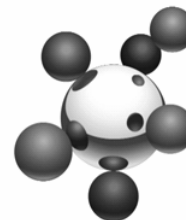
TWA= Time Weighted Average (8 hr.)  
STEL= Short Term Exposure Limit (15 min.)  
WEEL= Workplace Environmental Exposure Level

### SECTION 9 Physical and chemical properties

**State of matter** liquid

**Colour** clear

**Odour** alcoholic



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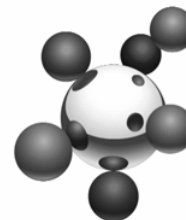
<b>Form</b>	liquid
<b>Boiling point/boiling range</b>	74 - 80 °C
<b>Flash point</b>	13 °C
<b>Lower explosion limit</b>	4 %(V)
<b>Upper explosion limit</b>	20 %(V)
<b>Vapour pressure</b>	ca. 66.661 hPa at 20 °C
<b>Solubility</b>	miscible
<b>Melting point/range</b>	ca. ca.-114 °C
<b>Density</b>	0.79 g/cm <sup>3</sup>

## **SECTION 10 Stability and reactivity**

<b>Conditions to avoid</b>	Heat, flames and sparks.
<b>Hazardous decomposition products</b>	Carbon oxides
<b>Incompatible products</b>	Strong oxidizing agents Incompatible with acids. Halogenated compounds
<b>Hazardous reactions</b>	Hazardous polymerisation does not occur.

## **SECTION 11 Toxicological information**

<b>Acute oral toxicity</b>	Ethanol: LD50 rat: 7,060 mg/kg; literature value
<b>Acute inhalation toxicity</b>	Ethanol: LC50 rat: 66,000 mg/l; literature value; 4 h
<b>Acute dermal toxicity</b>	Ethanol: LDLo rabbit: 20,000 mg/kg; literature value



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### **SECTION 12 Ecological information**

#### **Ecotoxicity effects**

**Toxicity to fish** Ethanol:  
LC50 Pimephales promelas: 15,300 mg/l; 96 h; literature value

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### **SECTION 13 Disposal considerations**

**Waste Classification** US. EPA Resource Conservation and Recovery Act: (RCRA) D List of Characteristic Hazardous Wastes (40 CFR 261.21-24): D001

**Waste from residues / unused products** In accordance with local and national regulations. Do not contaminate ponds, waterways or ditches with chemical or used container. The product should not be allowed to enter drains, water courses or the soil.

**Uncleaned empty packaging** Do not burn, or use a cutting torch on, the empty drum., Triple rinse containers., Can be offered for recycling, re-conditioning or puncture.

Handling and storage: See chapter 7

Exposure controls / personal protection: See chapter 8

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### **SECTION 14 Transport information**

**DOT/49CFR** UN 1170 ETHANOL SOLUTION, 3, II  
**ADR** UN 1170 ETHANOL SOLUTION, 3, II  
**RID** UN 1170 ETHANOL SOLUTION, 3, II  
**ADNR** UN 1170 ETHANOL SOLUTION, 3, II  
**IMDG** UN 1170 ETHANOL SOLUTION, 3, II; EmS F-E, S-D  
**ICAO/IATA** UN 1170 Ethanol solution, 3, II

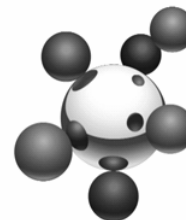
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### **SECTION 15 Regulatory information**

#### **U.S. Federal Classifications:**

**OSHA Hazards** Flammable Liquid, Mild eye irritant, Mild skin irritant

**SARA 311/312** Fire Hazard, Acute Health Hazard



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### U.S. Regulated Ingredients:

#### Hazard information reporting

**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required**

<u>Components</u>	<u>CAS-No.</u>
2-Methylpropan-2-ol	75-65-0

**US. Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)**

<u>Components</u>	<u>CAS-No.</u>
2-Methylpropan-2-ol	75-65-0
Ethanol	64-17-5

**US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)**

<u>Components</u>	<u>CAS-No.</u>
Ethanol	64-17-5
2-Methylpropan-2-ol	75-65-0

**US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)**

<u>Components</u>	<u>CAS-No.</u>
Ethanol	64-17-5
2-Methylpropan-2-ol	75-65-0

**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)**

<u>Components</u>	<u>CAS-No.</u>
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.	

#### Spill reporting

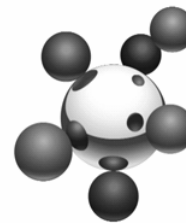
**US. EPA CERCLA Hazardous Substances (40 CFR 302)**

<u>Components</u>	<u>CAS-No.</u>	<u>Reportable Quantity</u>
2-Methylpropan-2-ol	75-65-0	100 lbs

#### Health

**US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)**

<u>Components</u>	<u>CAS-No.</u>
Not listed	



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### Inventories

EU list of existing chemical substances	All chemical constituents are listed in: EU list of existing chemical substances (See chapter 3)
US TSCA Inventory	All chemical constituents are listed in: US TSCA Inventory (See chapter 3)
Australian Inv. of Chem. Substances AICS	All chemical constituents are listed in: Australian Inv. of Chem. Substances AICS (See chapter 3)
Canadian Domestic Substances List DSL	All chemical constituents are listed in: Canadian Domestic Substances List DSL (See chapter 3)
Jap. Inv. of Exist. & New Chemicals ENCS	All chemical constituents are listed in: Jap. Inv. of Exist. & New Chemicals ENCS (See chapter 3)
Korean Exist. Chemicals List ECL	All chemical constituents are listed in: Korean Exist. Chemicals List ECL (See chapter 3)
Philippines Inv. of Chem. Subst. PICCS	All chemical constituents are listed in: Philippines Inv. of Chem. Subst. PICCS (See chapter 3)
Inv. of Exist. Chem. Substances in China	All chemical constituents are listed in: Inv. of Exist. Chem. Substances in China (See chapter 3)

### Other international regulations

**WHMIS Classification** B2: Flammable Liquid  
D2B: Toxic Material Causing Other Toxic Effects

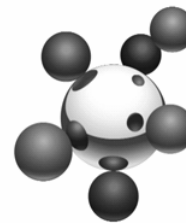
## SECTION 16 Other information

### Hazard Ratings

	<u>Health</u>	<u>Flammability</u>	<u>Reactivity Hazard</u>
<b>HMIS</b>	1	3	0
<b>NFPA</b>	0	3	0

All reasonable efforts were exercised to compile this MSDS in accordance with ISO 11014 and ANSI Z400.1.1993. The MSDS provides information regarding the health, safety and environmental hazards, at the date of issue, to facilitate the safe receipt, use and handling of the product in the workplace. Since Sasol and its subsidiaries cannot anticipate or control all conditions under which the product may be handled, used and received in the workplace, it remains the obligation of each user, receiver or handler to, prior to usage, review this MSDS in the context within which the product will be received, handled or used in the workplace. The user, handler or receiver must ensure that the necessary mitigating measures are in place as regards health and safety. This does not substitute the need or requirement for any relevant risk assessments to be conducted. It further remains the responsibility of the receiver, handler or user to communicate such information to all relevant parties that may be involved in the receipt, use or handling of the product. Although all reasonable efforts were exercised in the compilation of this MSDS, Sasol does not expressly warrant the accuracy or assume any liability for the incompleteness of the information contained herein or any advice given. The





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product is sold and risk passes in accordance with the specific terms and conditions of sale.

*The MSDS was created by: Motlatsi(MS)*

*The MSDS was approved by: Glen Telge*