

## Ethanol SIS C 200 Proof

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**SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**


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<b>Trade name</b>	Ethanol SIS C 200 Proof		
<b>Synonyms</b>	Denatured Alcohol		
<b>Use</b>	Industrial use, Paint and Coatings, Raw material for chemical processes, Raw material for industry, Solvent		
<b>Company</b>	Sasol Chemicals (USA) LLC (an affiliate of Sasol Chemicals North America LLC)		
<b>Address</b>	900 Threadneedle Ste 100 Houston TX 77079		
<b>Telephone</b>	CHEMTREC North America Transportation Emergency (24-hr)		(800) 424-9300
	CHEMTREC World Wide		(703) 527-3887
	Other Emergencies (24-hr)		(337) 494-5142
	MSDS and Product Information (8:00am-4:30pm CST)		(281) 588-3491
	Health and Safety Information (7:30am-4:00pm CST)		(281) 588-3492
<b>E-mail address</b>	SasolElectronicSDS@us.sasol.com		

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**SECTION 2 HAZARDS IDENTIFICATION**


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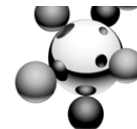
**GHS Hazards**

Flammable liquids	Category 2
Eye irritation	Category 2A
Acute toxicity (Oral)	Category 4
Acute toxicity (Inhalation)	Category 4
Acute toxicity (Dermal)	Category 4
Carcinogenicity	Category 2

**LABEL ELEMENTS****Hazard symbols****Signal word** Danger

<b>Hazard statements</b>	H225 Highly flammable liquid and vapour.
	H319 Causes serious eye irritation.
	H302 Harmful if swallowed.
	H312 Harmful in contact with skin.
	H332 Harmful if inhaled.
	H351 Suspected of causing cancer.

**Precautionary statements**



## Ethanol SIS C 200 Proof

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**Prevention**

- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P233 Keep container tightly closed.
- P240 Ground/bond container and receiving equipment.
- P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P280 Wear protective gloves/ eye protection/ face protection.
- P264 Wash skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
- P271 Use only outdoors or in a well-ventilated area.
- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.

**Response**

- P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide for extinction.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P313 If eye irritation persists: Get medical advice/ attention.
- P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
- P330 Rinse mouth.
- P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- P312 Call a POISON CENTER or doctor/ physician if you feel unwell.
- P362 Take off contaminated clothing and wash before reuse.
- P308 + P313 IF exposed or concerned: Get medical advice/ attention.

**Storage** P403 + P405 + P235 Store locked up in a well-ventilated place. Keep cool.

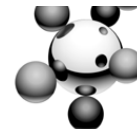
**Disposal** P501 Dispose of contents/ container to an approved waste disposal plant.

### SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

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<u>Components</u>	<u>CAS-No.</u>	<u>Weight percent</u>
Ethanol	64-17-5	90
Methanol	67-56-1	5
Ethyl Acetate	141-78-6	4
Methyl isobutyl ketone	108-10-1	1

See Section 8 for Exposure Guidelines and Section 15 for Regulatory Classifications.



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### SECTION 4 FIRST AID MEASURES

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- 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. When symptoms persist or in all cases of doubt seek medical advice. Wash contaminated clothing before re-use.
- Inhalation** Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. In case of shortness of breath, give oxygen. Call a physician immediately.
- Ingestion** If swallowed, call a poison control centre or doctor immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

### SECTION 5 FIREFIGHTING MEASURES

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#### FLAMMABLE PROPERTIES

**Fire/explosion** Flash back possible over considerable distance. NFPA Class IB flammable liquid.

**Suitable extinguishing media** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Protective equipment and precautions for firefighters** Wear self-contained breathing apparatus and protective suit. Keep containers and surroundings cool with water spray.

### SECTION 6 ACCIDENTAL RELEASE MEASURES

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**Methods and materials for containment and cleaning up** Evacuate personnel to safe areas. Remove all sources of ignition. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Do not flush into surface water or sanitary sewer system.

**Spill precautions** Material can create slippery conditions.

### SECTION 7 HANDLING AND STORAGE

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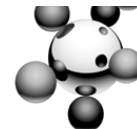
**Safe handling advice** Ensure all equipment is electrically grounded before beginning transfer operations. Keep away from heat and sources of ignition.

**Storage/Transport temperature** Ambient

**Load/Unload temperature** Ambient

### SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

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### ENGINEERING MEASURES

Ensure adequate ventilation, especially in confined areas.

### PERSONAL PROTECTIVE EQUIPMENT

**Eyes** Chemical resistant goggles must be worn., Face-shield

**Skin** Wear suitable protective clothing, gloves and eye/face protection.

**Inhalation** Respiratory protection is normally not required except in emergencies or when conditions cause excessive airborne levels of mists or vapors. Use NIOSH approved respiratory protection.

### EXPOSURE GUIDELINES

<u>Components</u>	<u>Exposure limit(s)</u>
<b>Ethanol</b>	ACGIH STEL 1,000 ppm OSHA PEL 1,000 ppm 1,900 mg/m <sup>3</sup>
<b>Methanol</b>	OSHA PEL 200 ppm 260 mg/m <sup>3</sup> ACGIH TLV (8-hour) 200 ppm ACGIH STEL 250 ppm
<b>Ethyl Acetate</b>	ACGIH TLV (8-hour) 400 ppm 1,400 mg/m <sup>3</sup> OSHA PEL 400 ppm 1,400 mg/m <sup>3</sup>
<b>Methyl isobutyl ketone</b>	OSHA PEL 100 ppm 410 mg/m <sup>3</sup> ACGIH TLV (8-hour) 20 ppm ACGIH STEL 75 ppm

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

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**Appearance** liquid;

**Colour** Clear, colorless

**Form** liquid

**Odour** alcohol-like

**Odour Threshold** no data available

**Flash point** 13 °C, 55 °F;

**Flammability** Upper explosion limit: 20.0 %(V)  
Lower explosion limit: 4.0 %(V)



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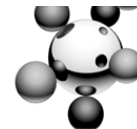
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<b>Boiling point/boiling range</b>	74 - 80 °C, 165.2 - 176 °F;
<b>Melting point/range</b>	-114 °C, -173 °F;
<b>Auto-ignition temperature</b>	ca. 400 °C, 752 °F; ASTM D 2155;
<b>Decomposition temperature</b>	no data available
<b>Flammability (solid, gas)</b>	no data available
<b>Vapour pressure</b>	ca. 66.661 hPa
<b>Vapour density</b>	no data available
<b>Density</b>	0.79 g/cm <sup>3</sup> @ 15.5 °C, 60 °F;
<b>Specific gravity</b>	no data available
<b>Water solubility</b>	completely soluble
<b>Viscosity</b>	no data available
<b>pH</b>	no data available
<b>Evaporation rate</b>	no data available
<b>Partition coefficient: n-octanol/water</b>	no data available

## SECTION 10 STABILITY AND REACTIVITY

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<b>Reactivity</b>	Stable at normal ambient temperature and pressure.
<b>Chemical stability</b>	No decomposition if stored and applied as directed.
<b>Conditions to avoid</b>	Keep away from heat and sources of ignition.
<b>Hazardous decomposition products</b>	Combustion products include carbon dioxide, carbon monoxide and possibly other unidentified organic compounds.
<b>Materials to avoid</b>	Can react with strong oxidizers, inorganic acids, and halogens.
<b>Hazardous polymerisation</b>	None.

**Ethanol SIS C 200 Proof****SECTION 11 TOXICOLOGICAL INFORMATION**

**Acute dermal toxicity** LD50 rabbit: > 2,000 mg/kg; OECD Test Guideline 402  
Test substance: Ethanol; (literature value)

LD50 rabbit: > 200 - 1,000 mg/kg  
Test substance: Methanol

LD50 rabbit: > 2,000 mg/kg  
Test substance: Ethyl Acetate; (literature value)

LD50 rabbit: > 2,000 mg/kg  
Test substance: MIBK; (literature value)

**Acute inhalation toxicity** LC50 mouse (4 hours): > 20 mg/l  
Test substance: Ethanol; (literature value)

LC50 rat: > 2 - 10 mg/l  
Test substance: Methanol

LC50 rat (4 hours): > 10 - 20 mg/l  
Test substance: MIBK; (literature value)

**Acute oral toxicity** LD50 rat: 2,000 mg/kg; OECD Test Guideline 401  
Test substance: Ethanol; (literature value)

LD50 rat: > 50 - 300 mg/kg  
Test substance: Methanol

LD50 rat: > 2,000 mg/kg  
Test substance: Ethyl Acetate; (literature value)

LD50 rat: > 2,000 mg/kg  
Test substance: MIBK; (literature value)

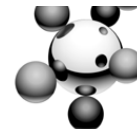
**Skin corrosion/irritation** (rabbit): OECD Test Guideline 404  
Test substance: Ethanol  
Not irritating, (literature value)

Test substance: Methanol  
irritating

(rabbit)  
Test substance: Ethyl Acetate  
Not irritating, (literature value)

(rabbit)  
Test substance: MIBK  
slight irritation, (literature value)

**Eye damage/irritation** (rabbit): OECD Test Guideline 405  
Test substance: Ethanol  
irritating, (literature value)



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(rabbit)  
Test substance: Ethyl Acetate  
slight irritation, (literature value)

(rabbit)  
Test substance: MIBK  
irritating, (literature value)

**Respiratory or skin sensitization** guinea pig: not sensitizing; Maximisation Test  
Ethanol, (literature value)

guinea pig: not sensitizing; Maximisation Test  
Ethyl Acetate, OECD Test Guideline 406

guinea pig: not sensitizing; Maximisation Test  
MIBK, (literature value)

**Germ cell mutagenicity** **Genotoxicity in vitro:**  
Type: Ames test; OECD Test Guideline 471  
System: Salmonella typhimurium; with and without metabolic activation  
Result: In vitro tests did not show mutagenic effects.  
Test substance: Ethanol  
(literature value)  
Type: Ames test  
System: Salmonella typhimurium; with and without metabolic activation  
Result: In vitro tests did not show mutagenic effects.  
Test substance: Ethyl Acetate  
(literature value)  
Type: Ames test  
System: Salmonella typhimurium; with and without metabolic activation  
Result: In vitro tests did not show mutagenic effects.  
Test substance: MIBK  
(literature value)

**Genotoxicity in vivo:**  
no data available

**Assessment Mutagenicity:**  
Based on available data, the classification criteria are not met.

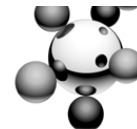
**Reproductive toxicity** **Reproductive toxicity:**  
no data available

**Assessment Reproductive toxicity:**  
no data available

**Teratogenicity:**  
no data available

**Assessment teratogenicity:**  
no data available

**STOT - single** no data available



## Ethanol SIS C 200 Proof

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### exposure

**STOT - repeated exposure** rat; Oral; 90-day;  
NOAEL: 1,730 mg/kg  
LOAEL: 3,160 mg/kg  
Test substance: Ethanol  
Based on available data, the classification criteria are not met.

**Aspiration toxicity** no data available

**Carcinogenicity** **Assessment carcinogenicity:**  
Suspected of causing cancer.

### Carcinogenicity ratings

Methyl isobutyl ketone  
**IARC** Probably carcinogenic to humans.

## SECTION 12 ECOLOGICAL INFORMATION

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**Toxicity to fish** LC50 (Pimephales promelas (fathead minnow)) 96 hours: > 100 mg/l; flow-through test  
Test substance: Ethanol  
(literature value)

LC50 (Pimephales promelas (fathead minnow)) 96 hours: 29,400 mg/l  
Test substance: Methanol

LC50 (Pimephales promelas (fathead minnow)) 96 hours: > 100 mg/l; semi-static test  
Test substance: Ethyl Acetate  
(literature value)

LC50 (Danio rerio (zebra fish)) 96 hours: > 100 mg/l; static test  
Test substance: MIBK  
(literature value)

**Toxicity to aquatic invertebrates** EC50 (Ceriodaphnia Dubia (water flea)) 48 hours: > 100 mg/l; static test  
Test substance: Ethanol  
(literature value)

EC50 (Daphnia magna (Water flea)) 48 hours: > 100 mg/l; static test  
Test substance: Ethyl Acetate  
(literature value)

EC50 (Daphnia magna (Water flea)) 48 hours: > 100 mg/l; static test  
Test substance: MIBK  
(literature value)

**Toxicity to algae** EC50 (Chlorella vulgaris) 72 hours: > 100 mg/l; static test; OECD Test Guideline 201  
Test substance: Ethanol  
(literature value)

EC50 (Desmodesmus subspicatus (green algae)) 72 hours: > 100 mg/l; static test  
Test substance: Ethyl Acetate





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(literature value)

**Chronic toxicity to aquatic invertebrates**

NOEC (Ceriodaphnia Dubia (water flea)) 10 d: 9.6 mg/l; semi-static test  
Test substance: Ethanol  
(literature value)

NOEC (Daphnia magna (Water flea)) 21 d: > 1 - 10 mg/l; semi-static test; OECD Test Guideline 211  
Test substance: Ethyl Acetate  
(literature value)

NOEC (Daphnia magna (Water flea)) 21 d: > 10 - 100 mg/l; semi-static test; OECD Test Guideline 211  
Test substance: MIBK  
(literature value)

**Biodegradation** Readily biodegradable.

OECD Test Guideline 301B (28 d): > 60 %  
Test substance: Ethanol  
(literature value)

OECD Test Guideline 301B (28 d): > 60 %  
Test substance: Ethyl Acetate  
(literature value)

OECD Test Guideline 301F (28 d): > 60 %  
Test substance: MIBK  
(literature value)

**Bioaccumulation**

Test substance: Ethanol  
No bioaccumulation is to be expected (log Pow <= 4).

Test substance: Ethyl Acetate  
No bioaccumulation is to be expected (log Pow <= 4).

Test substance: MIBK  
No bioaccumulation is to be expected (log Pow <= 4).

**Mobility in soil** no data available

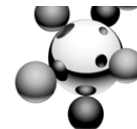
**Other adverse effects** no data available

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## SECTION 13 DISPOSAL CONSIDERATIONS

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**Waste Code** D001 - Ignitability (RQ 100 LB). This product has the RCRA characteristic of ignitability. Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations, mixtures, contamination, and spillage may change the classification.



## Ethanol SIS C 200 Proof

**Disposal methods** Dispose of only in accordance with local, state, and federal regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

**Empty containers.** Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, triple-rinsed, properly bunged and promptly returned to a drum reconditioner, or properly disposed.

### SECTION 14 TRANSPORT INFORMATION

**DOT** UN 1170, Ethanol solutions, 3, II  
(RQ Methanol) When shipped in quantities greater than 100,000 lbs, RQ must be added to the shipping description.

**IATA** UN 1170, Ethanol solutions, 3, II  
(RQ Methanol) When shipped in quantities greater than 100,000 lbs, RQ must be added to the shipping description.

**IMDG** UN 1170, Ethanol solutions, 3, II  
(RQ Methanol) When shipped in quantities greater than 100,000 lbs, RQ must be added to the shipping description.

#### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

**Remarks** no data available

### SECTION 15 REGULATORY INFORMATION

#### U.S. FEDERAL REGULATIONS

**OSHA Hazards (HCS 1994)**  
Flammable liquid, Irritant

#### **TSCA Inventory Listing**

##### Components

	<u>CAS-No.</u>
Ethanol	64-17-5
Methanol	67-56-1
Acetic acid ethyl ester	141-78-6
2-Pentanone, 4-methyl-	108-10-1

#### **SARA 302 Status**

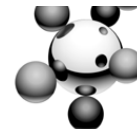
##### Components

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

#### **SARA 311/312 Classification**

"Fire hazard", "Immediate (acute) health hazard", "Delayed (chronic) health hazard"

#### **SARA 313 Chemical**



## Ethanol SIS C 200 Proof

<u>Components</u>	<u>CAS-No.</u>	<u>Weight percent</u>
Methanol	67-56-1	5 %
2-Pentanone, 4-methyl-	108-10-1	1 %

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

<u>Components</u>	<u>Reportable Quantity</u>	<u>Weight percent</u>
Methanol	5,000 LB	5 %
Acetic acid ethyl ester	5,000 LB	4 %
2-Pentanone, 4-methyl-	5,000 LB	1 %

### INTERNATIONAL REGULATIONS

#### WHMIS Classification

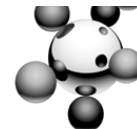
Class B, Division 2: Flammable liquid.  
 Class D, Division 2, Subdivision A: Very toxic material  
 Class D, Division 2, Subdivision B: Toxic material.

#### European Union

Classification according to Regulation (EU) 1272/2008.

Flammable liquids, Category 2  
 Eye irritation, Category 2  
 Acute toxicity (Oral), Category 4  
 Acute toxicity (Inhalation), Category 4  
 Acute toxicity (Dermal), Category 4  
 Carcinogenicity, Category 2

<b>Australia. Inventory of Chemical Substances (AICS)</b>	Listed
<b>Japan. Inventory of Existing and New Chemical Substances (ENCS)</b>	Listed
<b>Japan. Industrial Safety &amp; Health Law (ISHL) Inventory</b>	Listed
<b>Canada. Domestic Substances List (DSL) Inventory</b>	Listed
<b>Canadian Non-Domestic Substance Listing (NDSL)</b>	Not listed
<b>European Inventory of Existing Commercial Chemical Substances (EINECS) Listing</b>	Listed
<b>Philippines. Inventory of Chemicals / Chemical Substances (PICCS)</b>	Listed
<b>Korea. Existing Chemicals Inventory (KECI)</b>	Listed
<b>China. Inventory of Existing Chemical Substances (IECSC)</b>	Listed
<b>Mexico. National Inventory of Chemical Substances (INSQ)</b>	Listed
<b>New Zealand. Inventory of Chemicals (NZIoC)</b>	Listed
<b>Switzerland. Inventory of Notified New Substances (CHINV)</b>	Listed
<b>Taiwan. National Existing Chemical Inventory (NECI)</b>	Listed



## Ethanol SIS C 200 Proof

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Please note: The names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in Section 3.

### STATE REGULATIONS

#### California Prop. 65

##### Components

Methanol

2-Pentanone, 4-methyl-

##### CAS-No.

67-56-1

108-10-1

## SECTION 16 OTHER INFORMATION

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### HAZARD RATINGS

	<u>Health</u>	<u>Flammability</u>	<u>Physical Hazard/ Instability</u>
<b>HMIS®</b>	2	3	0
<b>NFPA</b>	2	3	0

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