Ethanol SIS C 200 Proof

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

Trade name	Ethanol SIS C 200 Proof	
Synonyms	Denatured Alcohol	
Use	Industrial use, Paint and Coatings, Raw material for chemical processes, Raw material for industry, Solvent	
Company	Sasol Chemicals (USA) LLC (an affiliate of Sasol Chemicals North America LLC)	
Address	900 Threadneedle Ste 100 Houston TX 77079	
Telephone	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
E-mail address	SasolElectronicSDS@us.sasol.com	

SECTION 2 HAZARDS IDENTIFICATION

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

Hazard statements

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

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

Components	CAS-No.	Weight percent
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

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

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

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

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

Components	Exposure limit(s)
Ethanol	ACGIH STEL 1,000 ppm OSHA PEL 1,000 ppm 1,900 mg/m3
Methanol	OSHA PEL 200 ppm 260 mg/m3 ACGIH TLV (8-hour) 200 ppm ACGIH STEL 250 ppm
Ethyl Acetate	ACGIH TLV (8-hour) 400 ppm 1,400 mg/m3 OSHA PEL 400 ppm 1,400 mg/m3
Methyl isobutyl ketone	OSHA PEL 100 ppm 410 mg/m3 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

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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Boiling point/boiling range	74 - 80 °C, 165.2 - 176 °F;
Melting point/range	-114 °C, -173 °F;
Auto-ignition temperature	ca. 400 °C, 752 °F; ASTM D 2155;
Decomposition temperature	no data available
Flammability (solid, gas)	no data available
Vapour pressure	ca. 66.661 hPa
Vapour density	no data available
Density	0.79 g/cm3 @ 15.5 °C, 60 °F;
Specific gravity	no data available
Water solubility	completely soluble
Viscosity	no data available
pH	no data available
Evaporation rate	no data available
Partition coefficient: n-octanol/water	no data available

SECTION 10 STABILITY AND REACTIVITY

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

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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)

(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

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

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

(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

SECTION 13 DISPOSAL CONSIDERATIONS

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.

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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	CAS-No.
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	CAS-No.	Weight percent

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

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

US. EPA CERCLA Hazardous Substances (40 CFR 302)

Components	Reportable Quantity	Weight percent
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

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

Ethanol SIS C 200 Proof

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	CAS-No.
Methanol	67-56-1
2-Pentanone, 4-methyl-	108-10-1

SECTION 16 OTHER INFORMATION

HAZARD RATINGS

	Health	Flammability	Physical Hazard/ Instability
HMIS®	2	3	0
NFPA	2	3	0

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