

**KAHAN TECH PART**

NO. 5 | 2ND FLOOR | EGHLEMI ST | SOUTH SOHREVARDI AVE | TEHRAN (15657) IRAN

**Emergency Assistance CHEMTREC 1-800-424-9300**

# **MATERIAL SAFETY DATA SHEETS**

## **SECTION I PRODUCT AND COMPANY IDENTIFICATION**

**Product: 192 Proof Ethyl Alcohol**  
**This MSDS is valid for all grades and catalog #'s**

Synonyms: Ethyl Alcohol MIN 96%; Ethanol; Methylated Spirits  
Formula: C<sub>2</sub>H<sub>5</sub>OH

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No. 5 2nd Fl Eghlemi St  
South Sohrevardi Ave  
Tehran (15657) Iran  
PHONE: 9821 7752 8252

## **SECTION II COMPOSITION /INFORMATION ON INGREDIENTS**

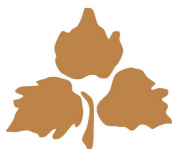
<b>No</b>	<b>Name of Tests</b>	<b>Specification</b>	<b>Methods</b>
1	Alcohol content	Min. 96.3%	OIML Table

## **SECTION III HAZARDS IDENTIFICATION**

**Carcinogen Status:** Not classifiable as a human carcinogen

**Routes of Exposure:**

Swallowing: May cause dizziness, faintness, drowsiness, decreased awareness or responsiveness, nausea, vomiting, staggering gait, lack of coordination, and coma  
Skin Absorption: No harmful effects with normal skin.  
Inhalation: High vapor concentration may cause burning sensation in nose and throat and stinging and watering in the eyes. At concentrations which cause irritation, dizziness, faintness, drowsiness, nausea and vomiting may also occur.  
Skin Contact: No evidence of harmful effects from available information.



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Eye Contact: May cause irritation including stinging, tearing, and redness

Effects of Repeated Overexposure: Long term repeated oral exposure to ethanol may result in the development of progressive liver injury with fibrosis

Other Health Hazards: Repeated ingestion of ethanol by pregnant mothers has been shown to adversely affect the central nervous system of the fetus, producing a collection of effects which together constitute fetal alcohol syndrome. These include mental and physical retardation, disturbances of learning, motor and language deficiencies, behavioral disorders and small size head.

### **Medical Conditions Aggravated by Overexposure:**

Repeated exposure to ethanol may aggravate liver injury produced from other causes.

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## SECTION IV FIRST AID

Obtain medical attention for all cases of over-exposure.

Swallowing: If patient is fully conscious, give two glasses of water. Induce vomiting. Obtain medical attention.

Skin: Wash skin with soap and water for at least 15 minutes

Inhalation: Remove to fresh air; Give artificial respiration if not breathing;

If breathing is difficult oxygen may be given by qualified personnel;

Obtain medical assistance if discomfort persists.

Eyes: Flush eyes with water for at least 15 minutes. Obtain medical assistance.

Note to Physician: Symptoms vary with alcohol level of the blood. Mild alcohol intoxication occurs at blood levels between 0.5-.15%.

Approximately 25% of individuals show signs of intoxication at these levels. Above .15% the person is definitely under the influence of ethanol; 50-95% of individuals are clinically intoxicated at these levels. Severe poisoning occurs when the blood is 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.

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## SECTION V FIRE FIGHTING MEASURES

### Fire/Explosive Properties

Flash Point: 60F (16C) Tag Closed Cup

68F (18C) Tag Open Cup

Flammable Limits in Air: 3.3 - 19.0% (by volume) for 100% ethanol

Flammability Classification: 3 (NFPA)

1993 Emergency Response Guidebook: Guide 26

1996 North American Emergency Response Guidebook: Guide 127

Extinguishing Media: Apply alcohol-type or all-purpose foam by manufacturer's recommended techniques for large fires. Use carbon dioxide or dry chemical media for small fires.



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Special Fire Fighting Procedures: Use water spray to cool fire-exposed containers and structures; Use water spray to disperse vapors - re-ignition is possible; Use self-contained breathing apparatus and protective clothing.

Unusual Fire and Explosion Hazards:

- ♦ Vapors may travel to source of ignition and flash back.
  - ♦ Vapors may settle in low or confined spaces.
  - ♦ May produce a floating fire hazard.
  - ♦ Static ignition hazard can result from handling and use.
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### **SECTION VI SPILL/ACCIDENTAL RELEASE MEASURES**

Small spills can be flushed with large amounts of water.

Large spills: Eliminate all ignition sources; ground all equipment; do not walk through spill; stop spill if possible; prevent entry into sewers, confined spaces, etc.; use a vapor suppressing foam to reduce vapors; absorb spill with noncombustible matter and transfer to containers; use nonsparking tools to collect absorbed material.

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### **SECTION VII HANDLING AND STORAGE**

- ♦ Flammable material - keep away from heat, sparks, and flame; sudden releases of hot organic vapors or mists from process equipment operating at elevated temperature may result in ignitions without the presence of obvious ignition sources.
  - ♦ Avoid contact with eyes.
  - ♦ Keep container closed.
  - ♦ Use with adequate ventilation.
  - ♦ Ground container when transferring product.
  - ♦ Vapors may collect in containers; treat empty containers as hazardous.
  - ♦ Wash thoroughly after handling
  - ♦ Vapors may settle in low or confined areas
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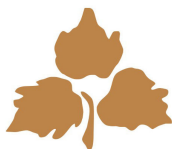
### **SECTION VIII EXPOSURE CONTROLS / PERSONAL PROTECTION**

Ventilation: Special, local ventilation is needed where vapors escape to the workplace air

Respiratory Protection: Use self-contained breathing apparatus in high vapor concentration

Personal Protective Equipment: gloves, lab coat or uniform, safety glasses, eye wash, safety shower

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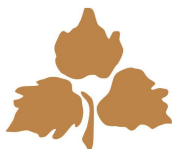


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**SECTION IX  
PHYSICAL AND CHEMICAL PROPERTIES**

No	Name of Tests	Specification	Methods
1	Alcohol content	Min. 96.3%	OIML Table
2	Appearance	Colourless and Clear	EEC 625-03
3	Organoleptic Characteristics	No detectable taste	Organoleptic
4	Total acidity as acetic acid	Max.15mg/l	EEC 625-03
5	Esters	Max.13mg/l	GC
6	Aldehydes as acetaldehyde	Max.5mg/l	GC
7	Higher alcohol (Fusel) as methyl-2propanol	Max.5mg/l	GC
8	Methanol	Max.20mg/l	GC 625-03
9	Dry residue (total solids)	Max.15mg/l	EEC 625-03
10	Volatile bases containing nitrogen	Max.1mg/l	EEC 625-03
11	Furfural	Not detectable	EEC 625-03
12	Permanganate Clearing time (Barbet test for Ketones and similar compounds at20°C)	20minutes	EEC 625-03
13	Hydrocarbons	Not detectable	--



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## **SECTION X STABILITY/REACTIVITY INFORMATION**

Stability: Stable

Conditions to avoid: None known

Incompatibility/Materials to avoid: strong oxidizing agents;  
strong inorganic acids

Hazardous Combustion/Decomposition Products:

Carbon monoxide and/or carbon dioxide

Hazardous Polymerization: Will not occur

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## **SECTION XI DISPOSAL CONSIDERATIONS**

Vapors may collect in empty containers. Treat empty  
containers as hazardous.

Dispose of spill-clean up and other wastes in accordance  
with Federal, State, and local regulations.

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## **SECTION XII TRANSPORTATION INFORMATION**

Proper Shipping Name: Ethyl Alcohol

Hazard Class: 3

UN Number: 1170

IMO Information: Ethanol or ethanol solutions

Class: 3.2 - Flammable Liquids

Packing Group II

Intermediate flashpoint group

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