

**Safety Data Sheet**  
acc. to OSHA Hazard Communication Standard (29 CFR 1910.1200)

Printing date 03/05/2015

Reviewed on 11/30/2014

## 1 Identification

- **Product identifier**
- **Trade name:** Ethanol
- **Article number:** 145615
- **CAS Number:**  
64-17-5
- **EC number:**  
200-578-6
- **Index number:**  
603-002-00-5
- **Application of the substance / the mixture** Laboratory chemicals for research and development
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
BeanTown Chemical  
9 Sagamore Park Road  
Hudson, NH 03051  
USA
- Phone: (603) 402-2234  
Fax: (603) 402-9713  
Email: [technical@beantownchem.com](mailto:technical@beantownchem.com)  
[www.beantownchem.com](http://www.beantownchem.com)
- **Information department:** Technical Support Department
- **Emergency telephone number:**  
During normal operating hours, please call (603) 402-2234  
After hours, please call Chemtrec at (800) 424-9300

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS08 Health hazard

STOT SE 2 H371 May cause damage to organs.

- **Label elements**

- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02



GHS08

- **Signal word** Danger

- **Hazard statements**

Highly flammable liquid and vapor.  
May cause damage to organs.

(Contd. on page 2)

USA

**Safety Data Sheet**  
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**Trade name: Ethanol**

(Contd. of page 1)

**· Precautionary statements***If medical advice is needed, have product container or label at hand.**Keep out of reach of children.**Read label before use.**Keep away from heat/sparks/open flames/hot surfaces. - No smoking.**Use explosion-proof electrical/ventilating/lighting/equipment.**Do not breathe dust/fume/gas/mist/vapors/spray.**IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.***· Other hazards****· Results of PBT and vPvB assessment****· PBT:** Not applicable.**· vPvB:** Not applicable.**3 Composition/information on ingredients****· Chemical characterization: Substances****· CAS No. Description**

64-17-5 ethanol

**· Identification number(s)****· EC number:** 200-578-6**· Index number:** 603-002-00-5**4 First-aid measures****· Description of first aid measures****· After inhalation:** Supply fresh air; consult doctor in case of complaints.**· After skin contact:** Generally the product does not irritate the skin.**· After eye contact:** Rinse opened eye for several minutes under running water.**· After swallowing:** If symptoms persist consult doctor.**· Information for doctor:****· Most important symptoms and effects, both acute and delayed** No further relevant information available.**· Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

**5 Fire-fighting measures****· Extinguishing media****· Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.**· For safety reasons unsuitable extinguishing agents:** Water with full jet**· Special hazards arising from the substance or mixture** No further relevant information available.**· Advice for firefighters****· Protective equipment:** No special measures required.**6 Accidental release measures****· Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

**· Environmental precautions:**

Do not allow product to reach sewage system or any water course.

(Contd. on page 3)

USA

**Safety Data Sheet**  
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**Trade name: Ethanol**

(Contd. of page 2)

Prevent seepage into sewage system, workpits and cellars.

Inform respective authorities in case of seepage into water course or sewage system.

**· Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

**· Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## 7 Handling and storage

**· Handling:**

**· Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

**· Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect from heat.

Protect against electrostatic charges.

**· Conditions for safe storage, including any incompatibilities**

**· Storage:**

**· Requirements to be met by storerooms and receptacles:** Store in a cool location.

**· Information about storage in one common storage facility:** Not required.

**· Further information about storage conditions:**

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

**· Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

**· Additional information about design of technical systems:**

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute

**· Control parameters**

**· Components with limit values that require monitoring at the workplace:**

**64-17-5 ethanol**

PEL	Long-term value: 1900 mg/m <sup>3</sup> , 1000 ppm
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REL	Long-term value: 1900 mg/m <sup>3</sup> , 1000 ppm
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TLV	Short-term value: 1880 mg/m <sup>3</sup> , 1000 ppm
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**· Additional information:** The lists that were valid during the creation were used as basis.

**· Exposure controls**

**· Personal protective equipment:**

**· General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

(Contd. on page 4)

USA

**Safety Data Sheet**  
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Printing date 03/05/2015

Reviewed on 11/30/2014

**Trade name:** Ethanol

(Contd. of page 3)

**Breathing equipment:**

*In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.*

**Protection of hands:**

*The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.*

*Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation*

**Material of gloves**

*The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.*

**Penetration time of glove material**

*The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.*

**Eye protection:** Tightly sealed goggles**9 Physical and chemical properties****Information on basic physical and chemical properties****General Information****Appearance:**

**Form:** Liquid

**Color:** Colorless

**Odor:**

Alcohol-like

**Odour threshold:**

Not determined.

**pH-value:**

Not determined.

**Change in condition**

**Melting point/Melting range:** -90 °C (-130 °F)

**Boiling point/Boiling range:** 78 °C (172 °F)

**Flash point:**

11 °C (52 °F)

**Flammability (solid, gaseous):**

Not applicable.

**Ignition temperature:**

425 °C (797 °F)

**Decomposition temperature:**

Not determined.

**Auto igniting:**

Not determined.

**Danger of explosion:**

Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

**Explosion limits:**

**Lower:** 3.5 Vol %

**Upper:** 15 Vol %

**Vapor pressure at 20 °C (68 °F):**

59 hPa (44 mm Hg)

**Density at 20 °C (68 °F):**

0.789 g/cm<sup>3</sup> (6.584 lbs/gal)

**Relative density**

Not determined.

**Vapour density**

Not determined.

**Evaporation rate**

Not determined.

**Solubility in / Miscibility with**

**Water at 20 °C (68 °F):** 1 g/l

(Contd. on page 5)

USA

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Reviewed on 11/30/2014

**Trade name:** Ethanol

(Contd. of page 4)

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**

**Dynamic at 20 °C (68 °F):** 1.2 mPas

**Kinematic:** Not determined.

**Organic solvents:** 100.0 %

**VOC content:** 100.0 %

789.0 g/l / 6.58 lb/gl

- **Other information** No further relevant information available.

## 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

**64-17-5 ethanol**

Oral	LD50	7060 mg/kg (rat)
Inhalative	LC50/4 h	20000 mg/l (rat)

- **Primary irritant effect:**

- **on the skin:** No irritant effect.

- **on the eye:** No irritating effect.

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

64-17-5	ethanol	I
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- **NTP (National Toxicology Program)**

Substance is not listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

## 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **Persistence and degradability:** No further relevant information available.

(Contd. on page 6)

USA

**Safety Data Sheet**  
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**Trade name: Ethanol**

(Contd. of page 5)

- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not known to be hazardous to water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

· <b>UN-Number</b>	
· <b>DOT, IMDG, IATA</b>	UN1987
· <b>UN proper shipping name</b>	
· <b>DOT</b>	Alcohols, n.o.s. (ethanol)
· <b>IMDG, IATA</b>	ALCOHOLS, N.O.S. (ethanol)
· <b>Transport hazard class(es)</b>	
· <b>DOT, IMDG, IATA</b>	3 Flammable liquids
· <b>Class</b>	3
· <b>Label</b>	
· <b>Packing group</b>	
· <b>DOT, IMDG, IATA</b>	II
· <b>Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>Special precautions for user</b>	Warning: Flammable liquids
· <b>Danger code (Kemler):</b>	33
· <b>EMS Number:</b>	F-E,S-D
· <b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>DOT</b>	
· <b>Quantity limitations</b>	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L

(Contd. on page 7)

USA

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**Trade name: Ethanol**

(Contd. of page 6)

<b>· Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<b>· UN "Model Regulation":</b>	UN1987, Alcohols, n.o.s. (ethanol), 3, II

## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture**
- Sara**

- Section 355 (extremely hazardous substances):**

Substance is not listed.

- Section 313 (Specific toxic chemical listings):**

Substance is not listed.

- TSCA (Toxic Substances Control Act):**

Substance is listed.

- Proposition 65**

- Chemicals known to cause cancer:**

Substance is not listed.

- Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

- Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

- Chemicals known to cause developmental toxicity:**

Substance is listed.

- Carcinogenic categories**

- EPA (Environmental Protection Agency)**

Substance is not listed.

- TLV (Threshold Limit Value established by ACGIH)**

64-17-5 ethanol

A3

- NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

- RTECS**

Substance is not listed.

- Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- NFPA ratings (scale 0-4)**

Health = 2

Fire = 3

Reactivity = 0

(Contd. on page 8)

USA

**Safety Data Sheet**  
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**Trade name: Ethanol**

(Contd. of page 7)

**· HMIS ratings (scale 0-4)**

Health = 2

Fire = 3

Reactivity = 0

**· Department issuing SDS: Technical Support Department****· Contact: Technical Support Department****· Date of preparation / last revision 03/05/2015 / -****· Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 2: Flammable liquids, Hazard Category 2

STOT SE 2: Specific target organ toxicity - Single exposure, Hazard Category 2

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