

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 06/17/2020

Reviewed on 06/17/2020

1 Identification

- **Product Identifier**
- **Trade Name: Ethanol 190 Proof**
- **CAS Number:**
64-17-5
- **EC number:**
200-578-6
- **Index number:**
603-002-00-5
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description:** Not relevant information.
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
EcoGreen Industries, LLC
5208 Industrial Way Suite A
Anderson, CA 96007
Phone: (530) 378-4443
Fax: (888) 612-3207
- **Emergency telephone number:**
Chemtrec (US): (800) 424-9300
Chemtrec (Outside US): (703) 527-3887 (Collect calls accepted)

2 Hazard(s) Identification

- **Classification of the substance or mixture:**



Flame

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



Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H335 May cause respiratory irritation.

Eye Irrit. 2B H320 Causes eye irritation.

- **Label elements:**
- **Hazard pictograms:**



- **Signal word:** Danger
- **Hazard-determining components of labeling:**
Ethanol
- **Hazard statements:**
H225 Highly flammable liquid and vapor.
H315+H320 Causes skin and eye irritation.

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H335 May cause respiratory irritation.

Precautionary statements:

- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- 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.
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
- P264 Wash thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P302+P352 If on skin: Wash with plenty of water.
- P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P312 Call a poison center/doctor if you feel unwell.
- P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
- P362+P364 Take off contaminated clothing and wash it before reuse.
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P370+P378 In case of fire: Use for extinction: CO₂, powder or water spray.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Unknown acute toxicity:

This value refers to knowledge of known, established toxicological or ecotoxicological values.

0 % of the mixture consists of component(s) of unknown toxicity.

Classification system: NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme**NFPA ratings (scale 0 - 4)****HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	3	Fire = 3
REACTIVITY	0	Physical Hazard = 0

Hazard(s) not otherwise classified (HNOC): None known

3 Composition/Information on Ingredients

- Chemical characterization: Substance**
- CAS No. Description**
64-17-5 Ethanol
- Identification number(s)**
- EC number:** 200-578-6

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4 First-Aid Measures

· **Description of first aid measures**

· **General information:** If symptoms persist, call a physician.

· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in the side position for transportation.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation occurs, consult a doctor.

· **After eye contact:**

Rinse opened eye for at least 15 minutes under running water. If symptoms persist, consult a doctor.

If easy to do so, remove contact lenses if worn.

If eye irritation occurs, consult a doctor.

· **After swallowing:**

Rinse mouth with water.

Never give anything by mouth to an unconscious person.

Contact a physician or Poison Control Center for medical advice.

If swallowed and symptoms occur, consult a 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:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **For safety reasons unsuitable extinguishing agents:** No further relevant information.

· **Special hazards arising from the substance or mixture:** No further relevant information available.

· **Advice for firefighters**

· **Special protective equipment for firefighters:**

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental Release Measures

· **Personal precautions, protective equipment and emergency procedures:**

Wear protective equipment. Keep unprotected persons away.

· **Environmental precautions:** Dilute with plenty of water.

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

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

Ensure adequate ventilation.

Dispose of the collected material according to regulations.

· **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.

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· **Protective Action Criteria for Chemicals**

· PAC-1:	1,800 ppm
· PAC-2:	3300* ppm
· PAC-3:	15000* ppm

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:** No further data; see section 7.
- **Control parameters:**

· **Components with occupational exposure limits:**

64-17-5 Ethanol

PEL	Long-term value: 1900 mg/m ³ , 1000 ppm
REL	Long-term value: 1900 mg/m ³ , 1000 ppm
TLV	Short-term value: 1880 mg/m ³ , 1000 ppm

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing and wash before reuse.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Breathing equipment:** Not required.

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· **Protection of hands:**



Protective gloves

· **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. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material:**

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

· **Eye protection:**



Tightly sealed goggles

· **Limitation and supervision of exposure into the environment:** None

9 Physical and Chemical Properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Liquid

Color: Clear

· **Odor:** Alcohol-like

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range: -114.5 °C (-174.1 °F)

Boiling point/Boiling range: 78 °C (172.4 °F)

· **Flash point:** 13 °C (55.4 °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 @ 20 °C (68 °F):** 59 hPa (44.3 mm Hg)

· **Density @ 20 °C (68 °F):** 0.711-0.8778 g/cm³ (5.9333-7.3252 lbs/gal)

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- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** Not determined.
- **Solubility in / Miscibility with:**
 - Water @ 20 °C (68 °F):** 1,000 g/l
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic @ 20 °C (68 °F):** 1.2 mPas
 - Kinematic:** Not determined.
 - Organic solvents:** 90-100 %
 - VOC content:** 90-100 %
- **Other information:** No further relevant information available.

10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Product is stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** Heat, flame and ignition sources.
- **Incompatible materials:** Strong acids, strong bases, strong oxidizing agents and strong reducing agents.
- **Hazardous decomposition products:** Oxides of carbon (COx)

11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**

LD/LC50 values that are relevant for classification:		
64-17-5 Ethanol		
Oral	LD50	7,060 mg/kg (Rat) Remarks: Lungs, Thorax, or Respiration: Other changes. Carcinogenicity - Mouse - Oral Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Liver: Tumors. Blood: Lymphomas including Hodgkin's disease. Central nervous system depression, narcosis, Damage to the heart., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Heart - Irregularities - Based on Human Evidence Central nervous system - Breathing difficulties - Based on Human Evidence Stomach - Irregularities - Based on Human Evidence
Inhalative	LC50/4 h	20,000 mg/l (Rat)
	LC50/96 hours	12,900-15,300 mg/l (Trout)

- **Primary irritant effect:**
- **On the skin:** Irritant to skin and mucous membranes.
- **On the eye:** Irritating effect.
- **Additional toxicological information:**
- **Carcinogenic categories:**
- **IARC (International Agency for Research on Cancer):**
 - Group 1 - Carcinogenic to humans
 - Group 2A - Probably carcinogenic to humans



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Group 2B - Possibly carcinogenic to humans

Group 3 - Not classifiable as to its carcinogenicity to humans

Group 4 - Probably not carcinogenic to humans

The IARC (the International Agency for Research on Cancer) concluded that ethanol found alcoholic beverages to be Group 1 - Carcinogenic to humans. All other instances it is not consider carcinogenic.

1

· NTP (National Toxicology Program):

Substance is not listed.

· OSHA-Ca (Occupational Safety & Health Administration):

Substance is not listed.

12 Ecological Information

· Toxicity:**· Aquatic toxicity:****64-17-5 Ethanol**

EC50 34,900 mg/l (Daphnia)

· Persistence and degradability: No further relevant information available.**· Behavior in environmental systems:****· Bioaccumulative potential:** No further relevant information available.**· Mobility in soil:** No further relevant information available.**· Additional ecological information:****· General notes:**

Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.

· 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:**

Observe all federal, state and local environmental regulations when disposing of this material.

· Uncleaned packaging**· Recommendation:** Disposal must be made according to official regulations.**· Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport Information

· UN-Number:**· DOT, ADR/ADN, IMDG, IATA**

UN1170

· UN proper shipping name:**· DOT**

Ethanol

· ADR/ADN

UN1170 ETHANOL (ETHYL ALCOHOL)

· IMDG

ETHANOL (ETHYL ALCOHOL)

· IATA

ETHANOL

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- **Transport hazard class(es):**
- **DOT**



- **Class:** 3 Flammable liquids
- **Label:** 3

- **ADR/ADN**



- **Class:** 3 (F1) Flammable liquids
- **Label:** 3

- **IMDG, IATA**



- **Class:** 3 Flammable liquids
- **Label:** 3
- **Packing group:** II
- **DOT, ADR/ADN, IMDG, IATA** II
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Warning: Flammable liquids
- **Hazard identification number (Kemler code):** 33
- **EMS Number:** F-E,S-D
- **Stowage Category** A
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **Transport/Additional information:**
- **DOT**
- **Quantity limitations:** On passenger aircraft/rail: 5 L
On cargo aircraft only: 60 L

- **ADR/ADN**

- **Excepted quantities (EQ):** Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml

- **IMDG**

- **Limited quantities (LQ):** 1L
- **Excepted quantities (EQ):** Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml
- **UN "Model Regulation":** UN 1170 ETHANOL (ETHYL ALCOHOL), 3, II

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15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
- **SARA (Superfund Amendments and Reauthorization):**

<ul style="list-style-type: none"> · Section 355 (extremely hazardous substances):
Substance is not listed.

<ul style="list-style-type: none"> · Section 313 (Specific toxic chemical listings):
Substance is not listed.

<ul style="list-style-type: none"> · TSCA (Toxic Substances Control Act):
ACTIVE

<ul style="list-style-type: none"> · Hazardous Air Pollutants
Substance is not listed.

<ul style="list-style-type: none"> · California Proposition 65: · Chemicals known to cause cancer:
Substance is not listed.

<ul style="list-style-type: none"> · Chemicals known to cause reproductive toxicity for females:
Substance is not listed.

<ul style="list-style-type: none"> · Chemicals known to cause reproductive toxicity for males:
Substance is not listed.

<ul style="list-style-type: none"> · Chemicals known to cause developmental toxicity:
Substance is not listed.

<ul style="list-style-type: none"> · New Jersey Right-to-Know List:
Substance is listed.

<ul style="list-style-type: none"> · New Jersey Special Hazardous Substance List:
CA, MU, TE, F3

<ul style="list-style-type: none"> · Pennsylvania Right-to-Know List:
Substance is listed.

<ul style="list-style-type: none"> · Pennsylvania Special Hazardous Substance List:
Substance is not listed.

- **Carcinogenic categories:**

<ul style="list-style-type: none"> · EPA (Environmental Protection Agency):
Substance is not listed.

<ul style="list-style-type: none"> · TLV (Threshold Limit Value established by ACGIH):
A3

<ul style="list-style-type: none"> · NIOSH-Ca (National Institute for Occupational Safety and Health):
Substance is not listed.

- **GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

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· **Hazard pictograms:**



· **Signal word:** Danger

· **Hazard-determining components of labeling:**

Ethanol

· **Hazard statements:**

H225 Highly flammable liquid and vapor.

H315+H320 Causes skin and eye irritation.

H335 May cause respiratory irritation.

· **Precautionary statements:**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

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.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 If on skin: Wash with plenty of water.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call a poison center/doctor if you feel unwell.

P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).

P362+P364 Take off contaminated clothing and wash it before reuse.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P370+P378 In case of fire: Use for extinction: CO₂, powder or water spray.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

Non-Regulated Material

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

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Date of last revision/ revision number:** 06/17/2020 / -

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· **Abbreviations and acronyms:**

- ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- 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)
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- NIOSH: National Institute for Occupational Safety and Health
- OSHA: Occupational Safety & Health Administration
- TLV: Threshold Limit Value
- PEL: Permissible Exposure Limit
- REL: Recommended Exposure Limit
- Flam. Liq. 2: Flammable liquids – Category 2
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

· *** Data compared to the previous version altered.**

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