Complies with EC no. 1907/2006
Date of Issue: 01/20/2006
Date of Revision: 12/31/2021R

Safety Data Sheet (SDS)

Section 1: Chemical Product and Company Identification

Cat # 190 Proof - 2816, 2816G, 2801, 2801G, 2805, 2805HC 2805SG, 2705M, 2855, 2855M

Part Name: Decon's Ethanol, 190 Proof

Emergency Telephone Numbers
US Chemtrec: (800) 424-9300
Canada: (703) 527-3887

Supplier: **Decon Laboratories Inc.**
460 Glennie Circle King of Prussia, Pa 19406
SDS Telephone # (610) 755-0800

Identified uses: Laboratory use

Section 2: Hazards Identification:

GHS Classification

Flammable Liquids, Category 2 H225
Eye Irritation, Category 2A H319
Full text of H-phrases: see section 16

Signal Word: DANGER

Hazard and Precautionary Statements

H225 Highly Flammable liquid and vapor.
H319 Causes serious eye irritation.
P210 Keep away from heat, sparks, open flames and 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.
P264 Wash thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303/361/353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water.
P305/351/338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P337+313: If eye irritation persists get medical advice/attention.
P403 + P235 Store in a well-ventilated place. Keep cool.
P243 Take precautionary measures against static discharge.
P241 Use explosion-proof electrical/ventilating/lighting equipment.
P370 + 378 In case of fire: Use appropriate extinguishing media (See Section 5).
P403 + P235 Store in a well-ventilated place. Keep cool.
P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations

Other Hazards

Other Hazards Not Contributing to the Classification: Flammable vapors can accumulate in head space of closed systems.

Unknown Acute Toxicity (GHS-US) Not available

NFPA Rating

Hazard Ratings:
These ratings are Decon Laboratories Inc.'s own assessments of the properties of the material using the ANSI/NFPA 704 Standard. Additional information can be found by consulting in the NFPA published ratings lists (List 325 and list 49).

If no data is listed the information is not available

Health 1 Flammability 3 Reactivity 0

Section 3: Composition/ Information on ingredients

Note: Items listed with a CASRN number have no CAS# available

Mixture

Name	Product identifier	% (w/w)	GHS-US classification
Ethyl alcohol	(CAS No) 64-17-5 (EC no) 200-578-6	92.3 - 94.6	Flam. Liq. 2, H225 Eye Irrit. 2A, H319
Water	(CAS No) 7732-18-5 (EC no) 231-791-2	5.4 - 7.7	Not classified

Section 4: First Aid Measures

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If exposed or concerned: Get medical advice/attention.

Inhalation: When symptoms occur: go into open air and ventilate suspected area.

Skin Contact: Remove contaminated clothing. Rinse immediately with large amounts of water. Call a POISON CENTER or doctor/physician if you feel unwell. Wash contaminated clothing before reuse.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Get medical advice and attention if you feel unwell. Rinse mouth. Do NOT induce vomiting.

Most Important Symptoms and Effects Both Acute and Delayed

General: Causes serious eye irritation.

Inhalation: Prolonged exposure to liquid may cause a mild irritation.

Skin Contact: Repeated or prolonged skin contact may cause dermatitis and defatting.

Eye Contact: Causes serious eye irritation. Symptoms may include: Redness, pain, swelling, itching, burning, tearing, and blurred vision.

Ingestion: Ingestion of this product is extremely harmful to human health. Nausea and vomiting, higher exposure causes unconsciousness.

Chronic Symptoms: None expected under normal conditions of use.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

Section 5: Fire-Fighting Measures

Extinguishing Media

Suitable Extinguishing Media: Alcohol-resistant foam, carbon dioxide, dry chemical, water spray, fog.

Unsuitable Extinguishing Media: Do not use a heavy water stream. A heavy water stream may spread burning liquid. Water may be ineffective because it may not cool material below its flash point.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Highly flammable liquid and vapor.

Explosion Hazard: May form flammable/explosive vapor-air mixture. When mixed with air and exposed to an ignition source, flammable vapors can burn in the open or explode in confined spaces. Being heavier than air, vapors may travel long distances to an ignition source and flash back. Runoff to sewer may cause fire or explosion hazard.

Reactivity: Reacts violently with (strong) oxidizers: (increased) risk of fire/explosion.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

Firefighting Instructions: Use water spray or fog for cooling exposed containers. Prevent fire-fighting water from entering environment.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO_2).

Reference to Other Sections

Refer to section 9 for flammability properties.

Section 6: Accidental Release measures

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Use special care to avoid static electric charges. Keep away from heat, sparks, open flames, hot surfaces. – No smoking. Avoid all eyes and skin contact and do not breathe vapor and mist.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection. Use appropriate personal protection equipment (PPE). **Emergency Procedures:** Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. **Environmental Precautions**

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. **Methods for Cleaning Up:** Absorb and/or contain spill with inert material, then place in suitable container. Do not take up in combustible material such as: saw dust or cellulosic material. Use only non-sparking tools.

Reference to Other Sections

See Heading 8. Exposure controls and personal protection.

Section 7: Handling and Storage

Precautions for Safe Handling

Additional Hazards When Processed: Handle empty containers with care because residual vapors are flammable.
Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical, lighting, ventilating equipment.

Storage Conditions: Store in a dry, cool, and well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container closed when not in use. Keep in fireproof place.

Incompatible Materials: Strong oxidizing agents, acids, alkali metals, ammonia, hydrazine, peroxides, sodium, acid anhydrides, calcium hypochlorite, chromyl chloride, nitrosyl perchlorate, bromine pentafluoride, perchloric acid, silver nitrate, mercuric nitrate, potassium-tert-butoxide, magnesium perchlorate, acid chlorides, platinum, uranium hexafluoride, silver oxide, iodine heptafluoride, acetyl bromide, disulfuryl difluoride, tetrachlorosilane + water, acetyl chloride, permanganic acid, ruthenium (VIII) oxide, uranyl perchlorate, potassium dioxide.

Specific End Use(s)

Solvent.

Section 8: Exposure Controls / Personal Protection

Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Ethyl Alcohol (64-17-5)		
Mexico	OEL TWA (mg/m³)	1900 mg/m³
Mexico	OEL TWA (ppm)	1000 ppm
USA ACGIH	ACGIH STEL (ppm)	1000 ppm
USA ACGIH	ACGIH chemical category	Confirmed Animal Carcinogen with Unknown Relevance to Humans
USA OSHA	OSHA PEL (TWA) (mg/m³)	1900 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m³)	1900 mg/m³
USA NIOSH	NIOSH REL (TWA) (ppm)	1000 ppm
USA IDLH	US IDLH (ppm)	3300 ppm (10% LEL)
Alberta	OEL TWA (mg/m³)	1880 mg/m³
Alberta	OEL TWA (ppm)	1000 ppm
British Columbia	OEL STEL (ppm)	1000 ppm
Manitoba	OEL STEL (ppm)	1000 ppm
New Brunswick	OEL TWA (mg/m³)	1880 mg/m³
New Brunswick	OEL TWA (ppm)	1000 ppm
Newfoundland &	OEL STEL (ppm)	1000 ppm
Nova Scotia	OEL STEL (ppm)	1000 ppm
Nunavut	OEL STEL (mg/m³)	2355 mg/m³
Nunavut	OEL STEL (ppm)	1250 ppm
Nunavut	OEL TWA (mg/m³)	1884 mg/m³
Nunavut	OEL TWA (ppm)	1000 ppm
Northwest Territories	OEL STEL (mg/m³)	2355 mg/m³
Northwest Territories	OEL STEL (ppm)	1250 ppm
Northwest Territories	OEL TWA (mg/m³)	1884 mg/m³
Northwest Territories	OEL TWA (ppm)	1000 ppm
Ontario	OEL STEL (ppm)	1000 ppm
Prince Edward Island	OEL STEL (ppm)	1000 ppm
Québec	VEMP (mg/m³)	1880 mg/m³
Québec	VEMP (ppm)	1000 ppm
Saskatchewan	OEL STEL (ppm)	1250 ppm
Saskatchewan	OEL TWA (ppm)	1000 ppm
Yukon	OEL STEL (mg/m³)	1900 mg/m³
Yukon	OEL STEL (ppm)	1000 ppm
Yukon	OEL TWA (mg/m³)	1900 mg/m³
Yukon	OEL TWA (ppm)	1000 ppm

Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide sufficient ventilation to keep vapors below permissible exposure limit. Gas detectors should be used when flammable gases/vapors may be released. Proper grounding procedures to avoid static electricity should be followed.
Ensure all national/local regulations are observed.

Personal Protective Equipment: Protective clothing. Gloves. Protective goggles. Insufficient ventilation: wear respiratory protection.

Materials for Protective Clothing: Not available

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or safety glasses.

Skin and Body Protection: Use chemically protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

Other Information: When using, do not eat, drink, or smoke.

Chemical-resistant gloves should be worn whenever this material is handled. The glove material has to be impermeable and resistant to the product. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves immediately after use. Wash hands with soap and water. All glove recommendations presume that the risk of exposure is through splash and not intentional immersion of the hands into the product. Since glove permeation data does not exist for this material, no recommendation for the glove material can be given for the product. Permeation data must be obtained from the glove manufacturer to determine if the glove is suitable for the task.

Section 9: Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Physical state		Liquid
Appearance		Colorless, clear, volatile liquid
Odor		Alcohol
Odor Threshold	:	Not available
pH	:	Not available
Evaporation Rate	:	Not available
Melting Point	:	Not available
Freezing Point	:	-114°F (-173°F)
Boiling Point	:	78 °C (172.4 °F)
Flash Point	:	12.8 °C (55 °F) CC
Auto-ignition Temperature	:	Not available
Decomposition Temperature	:	Not available
Flammability (solid, gas)	:	Not available
Lower Flammable Limit	:	3.3 % for Ethanol
Upper Flammable Limit	:	19 % for Ethanol
Vapor Pressure	:	44.6 mm Hg @ 20°C (68°F)
Relative Vapor Density at 20 °C	:	1.59 for Ethanol
Relative Density	:	0.8157 - 0.814

Specific Gravity	:	Not available
Solubility	:	Water: Completely
Partition Coefficient: N-Octanol/Water	:	Not available
Viscosity	:	Not available
Explosion Data – Sensitivity to Mechanical Impact	:	Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	:	Static discharge could act as an ignition source.

Section 10: Stability and Reactivity:

Reactivity: Reacts violently with (strong) oxidizers: (increased) risk of fire/explosion.

Chemical Stability: Stable at standard temperature and pressure.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Open flame. Ignition sources.

Incompatible Materials: Strong oxidizing agents, acids, alkali metals, ammonia, hydrazine, peroxides, sodium, acid anhydrides, calcium hypochlorite, chromyl chloride, nitrosyl perchlorate, bromine pentafluoride, perchloric acid, silver nitrate, mercuric nitrate, potassium-tert-butoxide, magnesium perchlorate, acid chlorides, platinum, uranium hexafluoride, silver oxide, iodine heptafluoride, acetyl bromide, disulfuryl difluoride, tetrachlorosilane + water, acetyl chloride, permanganic acid, ruthenium (VIII) oxide, uranyl perchlorate, potassium dioxide.

Hazardous Decomposition Products: Carbon oxides (CO, CO_2).

Section 11: Toxicological Information

Information on Toxicological Effects - Product

Acute Toxicity: Not classified

LD50 and LC50 Data:

Ethyl Alcohol, 200 Proof (64-17-5)	
LC50 Inhalation Rat	124.7 mg/l/4h
Ethyl Alcohol, 200 Proof (64-17-5)	
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

Skin Corrosion/Irritation: Not classified

Serious Eye Damage/Irritation: Causes serious eye irritation.

Respiratory or Skin Sensitization: Not classified **Germ Cell Mutagenicity:** Not classified **Teratogenicity:** Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Prolonged exposure to liquid may cause a mild irritation.

Symptoms/Injuries After Skin Contact: Repeated or prolonged skin contact may cause dermatitis and defatting.

Symptoms/Injuries After Eye Contact: Causes serious eye irritation. Symptoms may include: Redness, pain, swelling, itching, burning, tearing, and blurred vision.

Symptoms/Injuries After Ingestion: This product is adulterated to prevent ingestion. Ingestion of this product is extremely harmful to human health. nausea and vomiting, higher exposure causes unconsciousness.

Chronic Symptoms: None expected under normal conditions of use.

Information on Toxicological Effects - Ingredient(s) LD50 and LC50 Data:

Ethyl alcohol (64-17-5)	
LD50 Oral Rat	10470 mg/kg
LD50 Dermal Rat	20 ml/kg
LC50 Inhalation Rat	124.7 mg/l/4h

Ethyl alcohol (64-17-5)	
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

Section 12: Ecological Information

Toxicity

Ecology - General: Readily bioldegrades. Evaporates to moderate extent. Does not bioaccumulate.

Ethyl alcohol (64-17-5)	
LC50 Fish 1	12.0 - 16.0 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 Daphnia 1	9268 - 14221 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	> 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

Persistence and Degradability

Ethyl Alcohol (64-17-5)	
Persistence and Degradability	Not established. May cause long-term adverse effects in the environment.

Bioaccumulative Potential

Ethyl Alcohol (64-17-5)	
Log Pow	-0.32
Bioaccumulative Potential	Not established.

Mobility in Soil Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

Section 13: Disposal Considerations

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Additional Information: Handle empty containers with care because residual vapors are flammable

Section 14: Transportation Information

In Accordance with DOT

Proper Shipping Name : ETHYL ALCOHOL SOLUTIONS
Hazard Class : 3
Identification Number : UN1170
Label Codes : 3
Packing Group : II
ERG Number : 127

Note:
Exemptions apply for small pack sizes.

In Accordance with IMDG

Proper Shipping Name : ETHYL ALCOHOL SOLUTIONS
Hazard Class : 3
Identification number UN1170
Packing Group : II
Label Codes : 3
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-D

In Accordance with IATA

Proper Shipping Name : ETHYL ALCOHOL SOLUTIONS
Packing Group : II **Identification Number** : UN1170 **Hazard Class** : 3
Label Codes : 3
ERG Code (IATA) : 3L

In Accordance with TDG

Proper Shipping Name : ETHYL ALCOHOL SOLUTIONS
Packing Group : II

Hazard Class : 3
Identification Number : UN1170
Label Codes : 3

Section 15: Regulatory Information

Ethyl Alcohol, 200 Proof (64-17-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard

Ethyl alcohol (64-17-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Water (7732-18-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

US State Regulations:

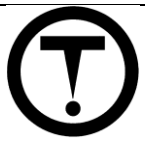
State or local regulations
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Ethyl alcohol (64-17-5)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Canadian Regulations

Ethyl Alcohol, 200 Proof (64-17-5)

Listed on the Canadian DSL (Domestic Substances List) Listed on the Canadian	
YesIDL Concentration 0.1 %	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Ethyl alcohol (64-17-5)	
Listed on the Canadian DSL omestic (D Listed on the Canadian Substances	
IDL Concentration 0.1 %	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects
Water (7732-18-5)	
Listed on the Canadian DSL omestic Substances List)	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

Section 16: Other Information

Date of Issue: 01/20/2006
Date of Revision: 12/31/2021R

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA

GHS Full Text Phrases:

Eye Irrit. 2A		Serious eye damage/eye irritation, Category 2A
Flam. Liq. 2		Flammable liquids, Category 2
H225		Highly flammable liquid and vapor
H319		Causes serious eye irritation

End of Safety Data Sheet