Denatured Alcohol

SECTION 1: Identification

Product Identifier

Product Name: Denatured Alcohol
Product code: 200-55001

Recommended Use of the Product and Restriction on Use

Relevant Identified Uses: All Proper and Legal Purposes
Uses Advised Against: None Known
Reasons Why Uses Advised Against: Not determined or not applicable.

Manufacturer or Supplier Details

Manufacturer:
United States
Superior Stone Products, LLC
8580 Byron Commerce Drive SW
Byron Center, Michigan 49315
616-583-0171
sds@superiorstoneproducts.com
www.superiorstoneproducts.com

Emergency Telephone Number:

United States
Chemtrec
1-800-262-8200 (24 Hours a Day/7 Days a Week)

SECTION 2: Hazard(s) Identification

GHS Classification:

Flammable liquids, category 2
Acute toxicity (inhalation), category 3
Eye irritation, category 2A
Carcinogenicity, category 2
Specific target organ toxicity - single exposure, category 1

Label elements

Hazard Pictograms:

Signal Word: Danger

Hazard statements:

H225 Highly flammable liquid and vapor
H331 Toxic if inhaled
H319 Causes serious eye irritation
H351 Suspected of causing cancer.
H370 Causes damage to organs.

Precautionary Statements:

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, and lighting equipment.
P242 Use only non-sparking tools
P243 Take precautionary measures against static discharge
P280 Wear protective gloves, protective clothing, eye protection and face protection.
P264 Wash hands thoroughly after handling.
P201 Obtain special instructions before use
P202 Do not handle until all safety precautions have been read and understood
P260 Do not breathe dust, fumes, gas, mist, vapors or spray.
P270 Do not eat, drink or smoke when using this product
P271 Use only outdoors or in a well-ventilated area
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P370+P378 In case of fire: Use agents recommended in Section 5 to extinguish.
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 or attention.
P308+P313 If exposed or concerned: Get medical advice or attention.
P321 Specific treatment (see Sections 4-8 of this SDS and any supplemental information on the product label).
P307+P311 If exposed: Call a POISON CENTER or physician.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P311 Call a doctor.
P403+P235 Store in a well-ventilated place. Keep cool
P405 Store locked up
P403+P233 Store in a well-ventilated place. Keep container tightly closed
P501 Dispose of contents and container in accordance with local, regional, national, and international regulations.

Hazards Not Otherwise Classified: None

SECTION 3: Composition/Information on Ingredients

Identification	Name	Weight %
CAS Number: 64-17-5	Ethanol	90-95
CAS Number: 67-56-1	Methanol	2-5
CAS Number: 141-78-6	Ethyl acetate	1-3
CAS Number: 142-82-5	Heptane	<1.5
CAS Number: 108-10-1	4-Methylpentan-2-one	0.9-1.4
CAS Number: 75-07-0	Acetaldehyde	<0.002

Additional Information: None

SECTION 4: First Aid Measures

Description of First Aid Measures

General Notes:

Show this Safety Data Sheet to the doctor in attendance. This product is toxic by one or more routes of exposure (inhalation, ingestion, skin contact). Take precautions to ensure your own safety before attempting rescue. Wear appropriate safety eyewear, gloves, protective clothing and respiratory protection to prevent exposure. See Section 8 of this SDS for personal protective equipment recommendations. Do not use the mouth to mouth method if victim has ingested or inhaled the product. Give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper device.

After Inhalation:

If inhaled, remove person to fresh air and place in a position comfortable for breathing. Keep person at rest. If breathing is difficult, administer oxygen. If breathing has stopped, provide artificial respiration. If symptoms develop or persist, seek medical advice/attention.

After Skin Contact:

Remove contaminated clothing and shoes. Rinse skin with copious amounts of water [shower] for several minutes. Launder contaminated clothing before reuse. If symptoms develop or persist, seek medical advice/attention.

After Eye Contact:

Rinse eyes with plenty of gently flowing lukewarm water for 15 minutes. Remove contact lenses if present and easy to do so. Protect unexposed eye. If symptoms develop or persist, seek medical advice/attention.

After Swallowing:

If swallowed, DO NOT induce vomiting unless told to do so by a physician or poison control center. Rinse mouth with water. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, place on the left side with head down to prevent aspiration of liquid into the lungs. If symptoms develop or persist, seek medical advice/attention.

Most Important Symptoms and Effects, Both Acute and Delayed

Acute Symptoms and Effects:

Product is highly flammable. Exposure to sources of ignition may cause physical injury.

Eye contact may result in irritation, redness, pain, inflammation, itching, burning and tearing.

Causes damage to organs. Effects are dependent on exposure (dose, concentration, contact time).

Acute inhalation exposure may lead to dizziness, drowsiness, headache, breathing difficulties, nausea, vomiting, abdominal pain, and lowering of consciousness. Adverse effects are dependent on exposure (dose, concentration, contact time).

Delayed Symptoms and Effects:

Effects are dependent on exposure (dose, concentration, contact time).

Suspected of causing cancer. Effects are dependent on exposure (dose, concentration, contact time).

Symptoms of exposure may be delayed.

Immediate Medical Attention and Special Treatment

Specific Treatment:

Skin/eye burns require immediate treatment.

If exhibiting symptoms of exposure, seek prompt medical attention.

Notes for the Doctor:

Treat symptomatically.

SECTION 5: Firefighting Measures

Extinguishing Media

Suitable Extinguishing Media:

Dry chemical, CO2, water spray or alcohol-resistant foam.

Unsuitable Extinguishing Media:

Do not use water jet.

Specific Hazards During Fire-Fighting:

Highly flammable liquid. Will be easily ignitable by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated. Inhalation or contact with material may irritate or burn skin and eyes. Fire may produce irritating, corrosive and/or toxic gases. Vapors may cause dizziness or suffocation.

Thermal decomposition may produce irritating/toxic fumes/gases.

Special Protective Equipment for Firefighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full-face piece operated in positive pressure mode.

Special precautions:

Evacuate non-essential personnel. Ventilate closed spaces before entering. Consider initial evacuation for 300 meters in all directions. If tank/rail car is involved in the fire, ISOLATE for 800 meters in all directions. Fight fire from a maximum distance. Move containers from fire area if you can do it without risk. Use water spray/fog for cooling fire exposed containers. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. Always stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles. If this is impossible, withdraw from area and let fire burn. Stand by, at a safe distance, with extinguisher ready for possible re-ignition. A vapor-suppressing foam may be used to reduce vapors. Avoid unnecessary run-off of extinguishing media which may cause pollution. Do not handle damaged containers unless specialized to do so.

Avoid contact with skin, eyes, hair and clothing. Do not breathe fumes/gas/mists/aerosols/vapors/dusts. Move containers from fire area if safe to do so. Use water spray/fog for cooling fire exposed containers. Avoid unnecessary run-off of extinguishing media which may cause pollution.

SECTION 6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures:

Evacuate unnecessary personnel and prevent entry. Ventilate area. Extinguish any sources of ignition. Wear recommended personal protective equipment (see Section 8). Do not get on skin, eyes or on clothing. Avoid breathing mist, vapor, dust, fume and spray. Do not walk through spilled material. Wash thoroughly after handling. Remove contaminated clothing with proper techniques in order to prevent contact with skin or eyes. Place contaminated clothing in a sealed container for future disposal.

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Prevent from reaching drains, sewers and waterways. Discharge into the environment must be avoided.

Methods and Material for Containment and Cleaning Up:

Toxic if inhaled. Put on appropriate personal protective equipment, including a self-contained breathing apparatus (see Section 8) before entering area of spill or leak. Avoid breathing dust, mist, fumes, vapors or spray. Do not touch damaged containers or spilled material unless wearing appropriate personal protective clothing. Stop leak if you can do it without risk. Contain and collect spillage and place in suitable container for future disposal. Dispose of in accordance with all applicable regulations (see Section 13).

Reference to Other Sections:

For personal protective equipment see Section 8. For disposal see Section 13.

SECTION 7: Handling and Storage

Precautions for Safe Handling:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating and lighting equipment. Take action to prevent static discharges. Handle containers with caution. Use appropriate personal protective equipment (see Section 8). Use only with adequate ventilation. Avoid breathing mist/vapor/spray/dust. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with skin, eyes and clothing. Wash affected areas thoroughly after handling. Keep away from incompatible materials (See Section 10). Keep containers tightly closed when not in use.

Conditions for Safe Storage, Including Any Incompatibilities:

Store in cool, dry, well-ventilated location out of direct sunlight and away from exit paths. Inspect containers and storage area regularly for signs of leak and damage. Store containers at a convenient height for handling, below eye level if possible. High shelving increases the risk of dropping containers, personal injury and exposure. Ensure that appropriate fire fighting and spill-clean up equipment is readily available. Keep away from food and beverages. Protect from freezing and physical damage. Store away from heat, open flames and other sources of ignition. Store separately. Keep container tightly sealed. Store away from incompatible materials (See Section 10).

SECTION 8: Exposure Controls/Personal Protection

Only those substances with limit values have been included below.

Occupational Exposure Limit Values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
OSHA	Ethanol	64-17-5	8-Hour TWA-PEL: 1900 mg/m³ ([1000 ppm])
	Methanol	67-56-1	8-Hour TWA-PEL: 260 mg/m³ (200 ppm)
	Methanol	67-56-1	15-Minute STEL: 325 mg/m³ (250 ppm)
	4-Methylpentan-2-one	108-10-1	8-Hour TWA-PEL: 410 mg/m³ (100 ppm)
	Ethyl acetate	141-78-6	8-Hour TWA-PEL: 1400 mg/m³ (400 ppm)
	Acetaldehyde	75-07-0	8-Hour TWA-PEL: 360 mg/m³ (200 ppm)
	Heptane	142-82-5	8-Hour TWA: 400 ppm (1600 mg/m3)
	Heptane	142-82-5	15-Minute STEL: 500 ppm (2000 mg/m3)
NIOSH	Ethanol	64-17-5	REL-TWA: 1900 mg/m³ (1000 ppm [up to 10 hr.])
	Ethanol	64-17-5	IDLH: 3300 ppm
	Methanol	67-56-1	IDLH: 6000 ppm
	Methanol	67-56-1	15-Minute STEL: 325 mg/m³ (250 ppm)
	Methanol	67-56-1	REL-TWA: 260 mg/m³ (200 ppm [up to 10 hr])
	4-Methylpentan-2-one	108-10-1	REL-TWA: 205 mg/m³ (50 ppm [up to 10 hr])
	4-Methylpentan-2-one	108-10-1	15-Minute STEL: 300 mg/m³ (75 ppm)

Denatured Alcohol

Country (Legal Basis)	Substance	Identifier	Permissible concentration
	4-Methylpentan-2-one	108-10-1	IDLH: 500 ppm
	Ethyl acetate	141-78-6	REL-TWA: 1400 mg/m³ (400 ppm [up to 10 hr])
	Ethyl acetate	141-78-6	IDLH: 2000 ppm
	Acetaldehyde	75-07-0	IDLH: 2000 ppm
	Heptane	142-82-5	IDLH: 750 ppm
	Heptane	142-82-5	8-Hour TWA: 85 ppm (350 mg/m3)
	Heptane	142-82-5	Ceiling Limit: 440 ppm (1800 mg/m3)
ACGIH	Ethanol	64-17-5	15-Minute STEL: 1000 ppm
	Methanol	67-56-1	15-Minute STEL: 250 ppm
	Methanol	67-56-1	8-Hour TWA: 200 ppm
	4-Methylpentan-2-one	108-10-1	8-Hour TWA: 20 ppm
	4-Methylpentan-2-one	108-10-1	15-Minute STEL: 75 ppm
	Ethyl acetate	141-78-6	8-Hour TWA: 400 ppm
	Acetaldehyde	75-07-0	Ceiling Limit: 25 ppm
	Heptane	142-82-5	8-Hour TWA: 200 ppm (Heptane, straight and branched isomers)
	Heptane	142-82-5	15-Minute STEL: 400 ppm
United States(California)	Ethanol	64-17-5	8-Hour TWA-PEL: 1900 mg/m³ ([1000 ppm])
	Methanol	67-56-1	Ceiling Limit: 1000 ppm
	Methanol	67-56-1	15-Minute STEL: 325 mg/m³ (250 ppm)
	Methanol	67-56-1	8-Hour TWA-PEL: 260 mg/m³ (200 ppm)
	4-Methylpentan-2-one	108-10-1	8-Hour TWA-PEL: 205 mg/m³ (50 ppm)
	4-Methylpentan-2-one	108-10-1	15-Minute STEL: 300 mg/m³ (75 ppm)
	Ethyl acetate	141-78-6	8-Hour TWA-PEL: 1400 mg/m³ (400 ppm)
	Acetaldehyde	75-07-0	Ceiling Limit: 45 mg/m³ (25 ppm)
	Heptane	142-82-5	8-Hour TWA: 400 ppm (1600 mg/m3)
	Heptane	142-82-5	15-Minute STEL: 500 ppm (2000 mg/m3)

Biological Limit Values:

Country (Legal Basis)	Substance	Identifier	Determinant	Specimen	Sampling time	Permissible limits
ACGIH	Methanol	67-56-1	Methanol	Urine	End of shift	15 mg/L
	4-Methylpentan-2-one	108-10-1	Methyl isobutyl ketone	Urine	End of shift	1 mg/L
	Heptane	142-82-5	Heptanedione	Urine	End of exposure	140 µg/L

Information on Monitoring Procedures:

Not determined or not applicable.

Appropriate Engineering Controls:

Toxic if inhaled. Emergency eye wash stations and safety showers should be available in the immediate vicinity of use or handling. Provide adequate ventilation to maintain the airborne concentrations of vapor, mists, and/or dusts below the applicable workplace exposure limits, while observing recognized national standards (or equivalent).

Personal Protection Equipment

Eye and Face Protection:

Use safety glasses with side shields or goggles. Use eye protection equipment that has been tested and approved by recognized national standards (or equivalent).

Skin and Body Protection:

Chemical resistant, impervious gloves approved by the appropriate standards. Gloves must be inspected prior to use. Avoid skin contact with used gloves. Appropriate techniques should be used to remove used gloves and contaminated clothing. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Ensure that all personal protective equipment is approved by recognized national standards (or equivalent).

Respiratory Protection:

If engineering controls do not maintain airborne concentrations below the applicable workplace exposure limits, or to an acceptable level (if exposure limits have not been established), a respirator approved by recognized national standards (or equivalent) must be worn. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

General Hygienic Measures:

When handling chemical products, do not eat, drink or smoke. Wash hands after handling, before breaks, and at the end of the workday. Avoid contact with skin, eyes and clothing. Wash contaminated clothing before reuse. Perform routine housekeeping.

SECTION 9: Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Appearance	Clear Liquid
Odor	Alcohol
Odor threshold	Not determined or not available.
pH	Not determined or not available.
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	172.79°F (78.22°C) (estimated)
Flash point (closed cup)	40°F (-4.4°C)
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	Not determined or not available.
Vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	Not determined or not available.

Denatured Alcohol

Solubilities	Not determined or not available.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

SECTION 10: Stability and Reactivity

Reactivity:
Not reactive under recommended handling and storage conditions.

Chemical Stability:
Stable under recommended handling and storage conditions.

Possibility of Hazardous Reactions:
Hazardous reactions are not anticipated under recommended conditions of handling and storage.

Conditions to Avoid:
Extreme heat, open flames, hot surfaces, sparks, ignition sources, static electricity and incompatible materials. Vapor accumulation in low or confined areas.

Incompatible Materials:
None known.

Hazardous Decomposition Products:
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological Information

Acute Toxicity

Assessment:
Toxic if inhaled.

Product Data: No data available.

Substance Data:

Name	Route	Result
Ethanol	oral	LD50 Rat: 10,470 mg/kg
	inhalation	LC50 Rat: 116.9 mg/L (4 hr [vapor])
	dermal	LD50 Rabbit: 17,100 mg/kg
Methanol	Oral ATE	LD50 Rat: 100 mg/kg
	Dermal ATE	LD50 Rabbit: 300 mg/kg
	Inhalation ATE	LC50 Rat: 3 mg/L (4 hr [vapor])
4-Methylpentan-2-one	oral	LD50 Rat: 2080 mg/kg
	dermal	LD50 Rat: > 2000 mg/kg
	Inhalation ATE	LC50 Rat: 11 mg/L (4 h [Vapors])
Ethyl acetate	oral	LD50 Rat: 5620 mg/kg
	dermal	LD50 Rabbit: > 20,000 mg/kg
	inhalation	LC50 Rat: 4000 ppmV (4 hr [Vapor])

Name	Route	Result
Acetaldehyde	oral	LD50 Rat: 660 mg/kg
	inhalation	LC50 Rat: 24.04 mg/L (4 hr [Vapor])
	dermal	LD50 Rabbit: 3540 mg/kg
Heptane	oral	LD50 Rat: >5000 mg/kg ([Read-across substance data])
	inhalation	LC50 Rat: >29.29 mg/L (4 hr [vapour])
	dermal	LD50 Rabbit: >2000 mg/kg ([Read-across substance data])

Skin Corrosion/Irritation

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data:

Name	Result
Heptane	Causes skin irritation.

Serious Eye Damage/Irritation

Assessment:

Causes serious eye irritation.

Product Data:

No data available.

Substance Data:

Name	Result
Ethanol	Causes serious eye irritation.
4-Methylpentan-2-one	Causes serious eye irritation.
Ethyl acetate	Causes serious eye irritation.
Acetaldehyde	Causes serious eye irritation.

Respiratory or Skin Sensitization

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Carcinogenicity

Assessment:

Suspected of causing cancer.

Product Data: No data available.

Substance Data:

Name	Species	Result
4-Methylpentan-2-one		Suspected of causing cancer.
Acetaldehyde	Rat	IARC has concluded that there is inadequate evidence in humans for the carcinogenicity of acetaldehyde and that there is sufficient evidence in experimental animals for the carcinogenicity of acetaldehyde. The overall conclusion was that acetaldehyde is possible carcinogenic to humans (Group 2B).

International Agency for Research on Cancer (IARC):

Name	Classification
Ethanol	Group 1
Methanol	Not Applicable
4-Methylpentan-2-one	Group 2B
Ethyl acetate	Not Applicable
Acetaldehyde	Group 2B
Heptane	Not Applicable

National Toxicology Program (NTP):

Name	Classification
Ethanol	Known to be human carcinogens
Methanol	Not Applicable
4-Methylpentan-2-one	Not Applicable
Ethyl acetate	Not Applicable
Acetaldehyde	Reasonably anticipated to be human carcinogens
Heptane	Not Applicable

OSHA Carcinogens:

Ingredient Name	CAS	OSHA Carcinogens Status
4-Methylpentan-2-one	108-10-1	Yes

Germ Cell Mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data:

Name	Result
Acetaldehyde	Suspected of causing genetic defects.

Reproductive Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Specific Target Organ Toxicity (Single Exposure)

Assessment:

Causes damage to organs.

Product Data:

No data available.

Substance Data:

Name	Result
Methanol	Causes damage to optic nerves.
4-Methylpentan-2-one	May cause drowsiness or dizziness.
Ethyl acetate	May cause drowsiness or dizziness.
Acetaldehyde	May cause respiratory irritation.
Heptane	May cause drowsiness or dizziness.

Specific Target Organ Toxicity (Repeated Exposure)

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data:

Name	Result
Heptane	Maybe fatal if swallowed and enters airways.

Information on Likely Routes of Exposure:

No data available.

Symptoms Related to the Physical, Chemical, and Toxicological Characteristics:

No data available.

Other Information:

No data available.

SECTION 12: Ecological Information

Acute (Short-Term) Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data:

Name	Result
Ethanol	Fish LC50 Pimephales promelas: 15,300 mg/L (96 hr)
	Aquatic Invertebrates EC50 Daphnia magna: >10,000 mg/L (48 hr [mobility; read-across substance data])
	Aquatic Plants EC50 Chlorella vulgaris: 275 mg/L (72 hr [growth rate])
	Bacteria LC50 Paramaecium caudatum: 5,800 mg/L (4 hr)
Methanol	Fish LC50 Lepomis macrochirus: 15,400 mg/L (96 hr)
	Aquatic Invertebrates EC50 Daphnia magna: 18,260 mg/L (96 hr [mobility])
	Aquatic Plants EC50 Raphidocelis subcapitata: 22,000 mg/L (96 hr [growth rate])
4-Methylpentan-2-one	Fish LC50 Danio rerio: >179 mg/L (96h)
	Aquatic Invertebrates EC50 Daphnia magna: >200 mg/L (48 hr [mortality])
Ethyl acetate	Fish LC50 Pimephales promelas: 230 mg/L (96 hr [mortality])
	Aquatic Invertebrates EC50 Daphnia pulex: 260 mg/L (48 hr [mobility])
Acetaldehyde	Aquatic Plants EC50 Pseudokirchneriella subcapitata: >100 mg/L (72 hr [growth rate])
	Aquatic Invertebrates EC50 Daphnia magna: 57.4 mg/L (48 hr [mobility])
	Fish LC50 Lepomis macrochirus: 53 mg/L (96 hr [mortality])

Denatured Alcohol

Name	Result
Heptane	Fish LC50 Oncorhynchus mykiss: 0.11 mg/L (96 hr [Read-across substance data])
	Aquatic Invertebrates EC50 Daphnia magna: 0.4 mg/L (48 hr [mobility, Read-across substance data])
	Aquatic Plants EC50 Raphidocelis subcapitata: 29 mg/L (72 hr [EL50-growth rate, Read-across substance data])

Chronic (Long-Term) Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data:

Name	Result
Ethanol	Aquatic Invertebrates NOEC Daphnia Magna: 9.6 mg/L (10 d [reproduction])
	Fish NOEC Danio rerio: 250 mg/L (5 d)
Methanol	Aquatic Invertebrates NOEC Daphnia magna: 208 mg/L (21 d [reproduction, QSAR substance data])
	Fish NOEC Pimephales promelas: 446.7 mg/L (28 d [QSAR substance data])
4-Methylpentan-2-one	Aquatic Invertebrates EC50 Daphnia magna: 78 mg/L (21 d [reproduction])
Ethyl acetate	Fish NOEC Pimephales promelas: <9.65 mg/L (32 d [growth rate])
	Aquatic Invertebrates NOEC Daphnia magna: 2.4 mg/L (21 d [parental mortality and reproduction rate])
Acetaldehyde	Fish LC50 Poecilia reticulata: 35 mg/L (14 d [mortality])
Heptane	Aquatic Invertebrates NOEC Daphnia magna: 0.17 mg/L (21 d [Read-across substance data])

Persistence and Degradability

Product Data: No data available.

Substance Data:

Name	Result
Ethanol	The substance is readily biodegradable. 84% degradation measured by O2 consumption, after 20 days.
Methanol	The substance is readily biodegradable. 97% degradation in water, measured by O2 consumption, after 20 days.
4-Methylpentan-2-one	The substance is readily biodegradable. 83% degradation in water, measured by O2 consumption, after 28 days.
Ethyl acetate	The substance is readily biodegradable. 69% degradation in water, measured by O2 consumption, after 28 days.
Acetaldehyde	The substance is readily biodegradable in water. 75% biodegradation in water, measured by BOD, after 28 days.
Heptane	The substance is readily biodegradable. 98% degradation in water, measured by O2 consumption, after 28 days (Read-across substance data).

Bioaccumulative Potential

Product Data: No data available.

Substance Data:

Denatured Alcohol

Name	Result
Ethanol	The substance is not expected to bioaccumulate in organisms (estimated BCF: 3).
Methanol	The substance is not expected to bioaccumulate (BCF: 4.5, basis-intestine, aquatic species).
4-Methylpentan-2-one	The substance has a low potential for bioaccumulation based on log Kow <=3.
Ethyl acetate	The substance is not expected to bioaccumulate (BCF:30).
Heptane	The substance has the potential to bioaccumulate (BCF: 198.7 dimensionless, basis: whole body w.w., Read-across substance data).

Mobility in Soil

Product Data: No data available.

Substance Data:

Name	Result
Ethanol	The substance is highly mobile, therefore, adsorption to soil and sediment is not expected (log Koc: 0.2).
Methanol	The substance is highly mobile, therefore, adsorption to soil and sediment is not expected (Koc: 0.13 - 0.61 dimensionless).
4-Methylpentan-2-one	The substance is mobile, therefore, there is low potential for adsorption to soil and sediment (Log Kow = 1.9).
Ethyl acetate	The endpoint is not applicable because the substance has a low octanol water partition coefficient.
Heptane	The substance is slightly mobile, therefore, adsorption to soil and sediment is expected (Koc: >= 386.46 - <= 1 452.78 L/kg at 20 °C, QSAR substance data).

Results of PBT and vPvB assessment

Product Data:

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

Substance Data:

PBT assessment:

Ethanol	The substance is not PBT.
Methanol	The substance is not PBT.
4-Methylpentan-2-one	The substance is not PBT.
Ethyl acetate	The substance is not PBT.
Acetaldehyde	The substance is not PBT.
Heptane	The substance is not PBT.

vPvB assessment:

Ethanol	The substance is not vPvB.
Methanol	The substance is not vPvB.
4-Methylpentan-2-one	The substance is not vPvB.
Ethyl acetate	The substance is not vPvB.
Acetaldehyde	The substance is not vPvB.
Heptane	The substance is not vPvB.

Other Adverse Effects: No data available.

SECTION 13: Disposal Considerations

Disposal Methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

Contaminated packages:

Not determined or not applicable.

SECTION 14: Transport Information

United States Transportation of Dangerous Goods (49 CFR DOT)

UN Number	1170
UN Proper Shipping Name	Ethanol Solutions
UN Transport Hazard Class(es)	3 
Packing Group	II
Environmental Hazards	None
Special Precautions for User	None
Passenger Air/Rail	5 L
Cargo Aircraft Only	60 L
Stowage Category	E

International Maritime Dangerous Goods (IMDG)

UN Number	1170
UN Proper Shipping Name	Ethanol Solution
UN Transport Hazard Class(es)	3 
Packing Group	II
Environmental Hazards	None
Special Precautions for User	None
EmS Number	F-E, S-D
Stowage Category	A
Excepted Quantities	E2
Limited Quantity	1 L

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN Number	1170
UN Proper Shipping Name	Ethanol Solution
UN Transport Hazard Class(es)	3 
Packing Group	II
Environmental Hazards	None
Special Precautions for User	None
ERG Code	3L

SECTION 15: Regulatory Information

United States Regulations

Inventory Listing (TSCA): All ingredients are listed-active or exempt.

Significant New Use Rule (TSCA Section 5): None of the ingredients are listed.

Export Notification under TSCA Section 12(b):

64-17-5	Ethanol	Not Listed
67-56-1	Methanol	Not Listed
108-10-1	4-Methylpentan-2-one	Not Listed
141-78-6	Ethyl acetate	Not Listed
75-07-0	Acetaldehyde	Not Listed
142-82-5	Heptane	Listed

SARA Section 302 Extremely Hazardous Substances: None of the ingredients are listed.

SARA Section 313 Toxic Chemicals:

67-56-1	Methanol	Listed
108-10-1	4-Methylpentan-2-one	Listed
75-07-0	Acetaldehyde	Listed

CERCLA:

67-56-1	Methanol	Listed	5000 lbs
108-10-1	4-Methylpentan-2-one	Listed	5000 lb
141-78-6	Ethyl acetate	Listed	5000 lbs
75-07-0	Acetaldehyde	Listed	1000 lbs
142-82-5	Heptane	Listed	100 lbs for RCRA D001

RCRA:

67-56-1	Methanol	Listed	U154
108-10-1	4-Methylpentan-2-one	Listed	U161
141-78-6	Ethyl acetate	Listed	U112
75-07-0	Acetaldehyde	Listed	U001
142-82-5	Heptane	Listed	D001

Section 112(r) of the Clean Air Act (CAA):

108-10-1	4-Methylpentan-2-one	Listed
75-07-0	Acetaldehyde	Listed

Massachusetts Right to Know:

64-17-5	Ethanol	Listed
67-56-1	Methanol	Listed
108-10-1	4-Methylpentan-2-one	Listed
141-78-6	Ethyl acetate	Listed
75-07-0	Acetaldehyde	Listed

142-82-5	Heptane	Listed

New Jersey Right to Know:

64-17-5	Ethanol	Listed
67-56-1	Methanol	Listed
108-10-1	4-Methylpentan-2-one	Listed
141-78-6	Ethyl acetate	Listed
75-07-0	Acetaldehyde	Listed
142-82-5	Heptane	Listed

New York Right to Know:

64-17-5	Ethanol	Listed
67-56-1	Methanol	Listed
108-10-1	4-Methylpentan-2-one	Listed
141-78-6	Ethyl acetate	Listed
75-07-0	Acetaldehyde	Listed
142-82-5	Heptane	Listed

Pennsylvania Right to Know:

64-17-5	Ethanol	Listed
67-56-1	Methanol	Listed
108-10-1	4-Methylpentan-2-one	Listed
141-78-6	Ethyl acetate	Listed
75-07-0	Acetaldehyde	Listed
142-82-5	Heptane	Listed

California Proposition 65:

⚠ **WARNING:** This product can expose you to Acetaldehyde; which is known to the State of California to cause cancer; and Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

⚠ **WARNING:** This product can expose you to 4-Methylpentan-2-one; which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Additional information: Not determined.

SECTION 16: Other Information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

Initial Preparation Date: 06.24.2025

Revision Notes:

Revision Date	Notes
2026-02-20	

End of Safety Data Sheet