

# SAFETY DATA SHEETS

**This SDS packet was issued with item:**

071048586

N/A

## MATERIAL SAFETY DATA SHEET

BRENNTAG GREAT LAKES, LLC  
P.O. BOX 444 BUTLER, WI 53007  
262-252-3550

### SECTION I - PRODUCT

PRODUCT NAME: ETHANOL SDA-1 200 PROOF

DATE OF PREPARATION: 06/09/08

HMIS RATING: HEALTH 1  
FLAMMABILITY 3  
REACTIVITY 0

EMERGENCY PHONE NUMBER: CHEMTREC (800) 424-9300

### SECTION II - HAZARDOUS INGREDIENTS

PRODUCT NAME	CAS #	VAPOR PRESSURE (mm Hg)	TLV	UNITS
CHEMICAL NAME			PEL	UNITS
ETHANOL (95.24%)	64-17-5	43.9	1000	PPM
METHANOL (3.81%)	67-56-1	96.0	200	PPM
METHYL ISOBUTYL KETONE (0.95%) (TLV: 50 PPM) (PEL: 100 PPM)	108-10-1	15.0	200	PPM

### SECTION III - PHYSICAL DATA

BOILING RANGE: 148 - 176 DEG F  
VAPOR DENSITY: HEAVIER THAN AIR  
EVAPORATION RATE: SLOWER THAN ETHER  
PERCENT VOLATILE BY VOLUME: 99%  
WEIGHT/GALLON: 6.61000 LBS/GAL

### SECTION IV - FIRE AND EXPLOSION HAZARD DATA

HAZARD CLASSIFICATION OSHA: FLAMMABLE LIQUID-CLASS IB

DOT: 3

FLASH POINT (TCC): > 54 DEG F

LOWER EXPLOSION LIMIT % BY VOLUME (IN AIR): > 3.3

EXTINGUISHING MEDIA: Carbon dioxide. Dry chemical. Alcohol-type foam.  
Water spray.

SPECIAL FIREFIGHTING PROCEDURES: Use self-contained breathing apparatus.  
Wear full protective clothing. Water spray (fog) may reduce intensity of flames.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors form from this product and may settle in low places, travel along the ground, or move by air currents to be ignited by pilot lights, other flames, smoking, sparks, heaters, electrical equipment, static discharges, or other ignition sources at locations distant from handling point.

Product contains alcohol, therefore flames might be difficult to see because they are virtually colorless. Can react vigorously with strong oxidizing agents.

### SECTION V - HEALTH HAZARD DATA

#### EFFECTS OF OVEREXPOSURE

##### INGESTION:

Nausea. Drowsiness. Headache. Dizziness. Incoordination. Loss of consciousness. Difficulty with speech. Central nervous system depression. Death. Blindness.

##### SKIN ABSORPTION:

Possible systemic effects.

##### INHALATION:

Narcosis. Dizziness. Nausea. Drowsiness. Loss of coordination. Visual impairment. Irritation. Respiratory failure.

##### SKIN CONTACT:

Irritation. Chapping. Dermatitis. Erythema. Scaling.

##### EYE CONTACT:

Irritation.

##### CHRONIC EFFECTS OF OVEREXPOSURE:

Toxic effects of methanol are accumulative and affect the nervous system, especially the optic nerve. These symptoms may linger for several days after overexposures.

##### OTHER HEALTH HAZARDS:

None currently known.

##### PRIMARY ROUTE(S) OF ENTRY:

Ingestion. Skin absorption. Inhalation. Eye contact.

##### EMERGENCY AND FIRST AID PROCEDURES

##### INGESTION:

If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. Call a physician. Give plenty of water or, if available, milk to drink.

##### SKIN:

Immediately wash skin with soap and plenty of water.  
Remove and wash contaminated clothing promptly. Call a physician.

##### INHALATION:

If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.

##### EYES:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

##### NOTES TO PHYSICIAN:

None.

## SECTION VI - REACTIVITY DATA

### STABILITY:

Stable.

### CONDITIONS TO AVOID:

Heat. Ignition sources. Fire.

### INCOMPATIBILITY:

Sulfuric acid. Strong oxidizing agents. Nitrates. Perchlorates.

**PRODUCT NAME:** ETHANOL SDA-1 200 PROOF

### HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon monoxide. Carbon dioxide. Toxic vapors. Formaldehyde.

### HAZARDOUS POLYMERIZATION:

Will not occur.

### CONDITIONS TO AVOID:

None known.

## SECTION VII - SPILL OR LEAK PROCEDURES

### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Contact local authorities.

Extinguish and do not turn on any ignition source until area is determined to be free from explosion or fire hazards.

Collect large spills for disposal. Flush small spills with water. Soak up with sawdust, sand, oil dry, or other absorbent material.

### WASTE DISPOSAL:

Reclamation in accordance with all federal, state, and local regulations. Incineration in accordance with all federal, state, and local regulations.

## SECTION VIII - SAFE HANDLING AND USE INFORMATION

### RESPIRATORY PROTECTION:

If vapors are present, use a MESA or NIOSH approved respirator for organic vapors, fresh air breathing apparatus, or a self contained breathing apparatus.

### VENTILATION:

Keep this product in closed equipment.

Special, local ventilation is needed at points where vapors or mists are expected to

escape to the workplace air.

Use in well-ventilated areas.

### PROTECTIVE GLOVES:

Consult the glove manufacturer for the most appropriate glove material.

### EYE PROTECTION:

Chemical safety goggles.

### OTHER PROTECTIVE EQUIPMENT:

Eye bath and safety shower.

Wear protective clothing to prevent repeated or prolonged contact.

## SECTION IX - SPECIAL PRECAUTIONS

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

DANGER! May be fatal if swallowed. Cannot be made nonpoisonous.

Causes eye irritation. May cause skin irritation. Flammable.

Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or mist. Use with adequate ventilation. Keep away from heat, sparks, and flame.

Wash thoroughly after handling. Keep container closed.

Avoid prolonged or repeated contact with skin. Store in cool, dry, ventilated area.

Equipment and containers should be bonded and grounded when transferring or using material.

May cause blindness if swallowed. Use explosion-proof electrical fixtures.

### OTHER PRECAUTIONS:

None.

### Section 313 Supplier Notification

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

CAS#	Chemical Name	Percent by Weight
67-56-1	METHYL ALCOHOL	3.8%

This information must be included in all MSDSs that are copied and distributed for this material.

**1. Identification**

**Product identifier** ETHYL ALCOHOL SDA-1 200PF  
**Other means of identification** None.  
**Recommended use** ALL PROPER AND LEGAL PURPOSES  
**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information**

**Manufacturer**

**Company name** Brenntag Mid-South, Inc.  
**Address** 1405 Highway 136, West  
Henderson, KY 42420  
**Telephone** 270-830-1222  
**E-mail** Not available.  
**Emergency phone number** 800-424-9300 CHEMTREC

**2. Hazard(s) identification**

**Physical hazards** Flammable liquids Category 2  
**Health hazards** Acute toxicity, dermal Category 3  
Serious eye damage/eye irritation Category 2A  
Carcinogenicity Category 2  
Reproductive toxicity Category 2  
Specific target organ toxicity, single exposure Category 2  
Specific target organ toxicity, repeated exposure Category 1  
**Environmental hazards** Hazardous to the aquatic environment, acute hazard Category 2  
Hazardous to the aquatic environment, long-term hazard Category 2  
**OSHA defined hazards** Not classified.

**Label elements**



**Signal word** Danger  
**Hazard statement** Highly flammable liquid and vapor. Toxic in contact with skin. Causes serious eye irritation. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

**Precautionary statement**

**Prevention** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear eye protection/face protection. Wear protective gloves/protective clothing/eye protection/face protection.

<b>Response</b>	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Call a poison center/doctor. If eye irritation persists: Get medical advice/attention. Take off immediately all contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.
<b>Storage</b>	Store in a well-ventilated place. Keep cool. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.
<b>Supplemental information</b>	95.24% of the mixture consists of component(s) of unknown acute dermal toxicity. 4.76% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 4.76% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
ETHANOL		64-17-5	95.24
METHANOL		67-56-1	3.81
2-PENTANONE, 4-METHYL-		108-10-1	0.95

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical advice/attention if you feel unwell. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Get medical advice/attention if you feel unwell.
<b>Most important symptoms/effects, acute and delayed</b>	Headache. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Coughing. Prolonged exposure may cause chronic effects.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Take off immediately all contaminated clothing. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Alcohol resistant foam. Water fog. Carbon dioxide (CO <sub>2</sub> ). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards Highly flammable liquid and vapor.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

### Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material.

**Large Spills:** Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

**Small Spills:** Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

### Environmental precautions

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases. Use appropriate containment to avoid environmental contamination.

## 7. Handling and storage

### Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

### Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
2-PENTANONE, 4-METHYL- (CAS 108-10-1)	PEL	410 mg/m <sup>3</sup>
ETHANOL (CAS 64-17-5)	PEL	100 ppm 1900 mg/m <sup>3</sup>
METHANOL (CAS 67-56-1)	PEL	1000 ppm 260 mg/m <sup>3</sup> 200 ppm

#### US. ACGIH Threshold Limit Values

Components	Type	Value
2-PENTANONE, 4-METHYL- (CAS 108-10-1)	STEL	75 ppm
ETHANOL (CAS 64-17-5)	TWA	20 ppm
METHANOL (CAS 67-56-1)	STEL	1000 ppm
	TWA	250 ppm 200 ppm

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
2-PENTANONE, 4-METHYL- (CAS 108-10-1)	STEL	300 mg/m <sup>3</sup>
	TWA	75 ppm 205 mg/m <sup>3</sup> 50 ppm
ETHANOL (CAS 64-17-5)	TWA	1900 mg/m <sup>3</sup> 1000 ppm
METHANOL (CAS 67-56-1)	STEL	325 mg/m <sup>3</sup> 250 ppm
	TWA	260 mg/m <sup>3</sup> 200 ppm

### Biological limit values

#### ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
2-PENTANONE, 4-METHYL- (CAS 108-10-1)	1 mg/l	Methyl isobutyl ketone	Urine	*
METHANOL (CAS 67-56-1)	15 mg/l	Methanol	Urine	*

\* - For sampling details, please see the source document.

### Exposure guidelines

#### US - California OELs: Skin designation

METHANOL (CAS 67-56-1) Can be absorbed through the skin.

#### US - Minnesota Haz Subs: Skin designation applies

METHANOL (CAS 67-56-1) Skin designation applies.

#### US - Tennessee OELs: Skin designation

METHANOL (CAS 67-56-1) Can be absorbed through the skin.

#### US ACGIH Threshold Limit Values: Skin designation

METHANOL (CAS 67-56-1) Can be absorbed through the skin.

#### US NIOSH Pocket Guide to Chemical Hazards: Skin designation

METHANOL (CAS 67-56-1) Can be absorbed through the skin.

### Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station. Eye wash fountain and emergency showers are recommended.

## Individual protection measures, such as personal protective equipment

<b>Eye/face protection</b>	Chemical respirator with organic vapor cartridge and full facepiece.
<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.
<b>Other</b>	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
<b>Respiratory protection</b>	Chemical respirator with organic vapor cartridge and full facepiece.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	CLEAR COLORLESS
<b>Odor</b>	ETHEREAL
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	-171.75 °F (-113.19 °C) estimated / -173 °F (-113.89 °C)
<b>Initial boiling point and boiling range</b>	173 °F (78.34 °C) estimated
<b>Flash point</b>	60.0 °F (15.6 °C)
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.

### Upper/lower flammability or explosive limits

<b>Flammability limit - lower (%)</b>	7.4 % estimated
<b>Flammability limit - upper (%)</b>	31.2 % estimated
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	82 hPa estimated
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	678.05 °F (358.92 °C) estimated
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.

### Other information

<b>Density</b>	6.61 lbs/gal
<b>Explosive properties</b>	Not explosive.
<b>Flammability class</b>	Flammable IB estimated
<b>Oxidizing properties</b>	Not oxidizing.
<b>Percent volatile</b>	100 % estimated
<b>Specific gravity</b>	0.79
<b>VOC (Weight %)</b>	100 % estimated



## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	May cause damage to organs by inhalation. May cause damage to organs through prolonged or repeated exposure by inhalation.
<b>Skin contact</b>	Toxic in contact with skin.
<b>Eye contact</b>	Causes serious eye irritation.
<b>Ingestion</b>	Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** Headache. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Coughing.

### Information on toxicological effects

**Acute toxicity** Toxic in contact with skin.

<b>Components</b>	<b>Species</b>	<b>Test Results</b>
2-PENTANONE, 4-METHYL- (CAS 108-10-1)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 16000 mg/kg
<b>Inhalation</b>		
LC50	Rat	8.2 mg/l, 4 Hours
<b>Oral</b>		
LD50	Rat	2080 mg/kg
ETHANOL (CAS 64-17-5)		
<b>Acute</b>		
<b>Inhalation</b>		
LC50	Mouse	39 mg/l, 4 Hours
	Rat	20000 ppm, 10 Hours
<b>Oral</b>		
LD50	Dog	5.5 g/kg
	Guinea pig	5.6 g/kg
	Mouse	3450 mg/kg
	Rat	6.2 g/kg
METHANOL (CAS 67-56-1)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	15800 mg/kg
<b>Inhalation</b>		
LC50	Cat	85.41 mg/l, 4.5 Hours
		43.68 mg/l, 6 Hours
	Rat	64000 ppm, 4 Hours
		87.5 mg/l, 6 Hours

Components	Species	Test Results
<b>Oral</b>		
LD50	Dog	8000 mg/kg
	Monkey	2 g/kg
	Mouse	7300 mg/kg
	Rabbit	14.4 g/kg
	Rat	5628 mg/kg

\* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation** Prolonged skin contact may cause temporary irritation.

**Serious eye damage/eye irritation** Causes serious eye irritation.

**Respiratory or skin sensitization**

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** Suspected of causing cancer.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

2-PENTANONE, 4-METHYL- (CAS 108-10-1) 2B Possibly carcinogenic to humans.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**Reproductive toxicity** Suspected of damaging fertility or the unborn child.

**Specific target organ toxicity - single exposure** May cause damage to organs.

**Specific target organ toxicity - repeated exposure** Causes damage to organs through prolonged or repeated exposure.

**Aspiration hazard** Not an aspiration hazard.

**Chronic effects** Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

**12. Ecological information**

**Ecotoxicity** Toxic to aquatic life with long lasting effects.

Components	Species	Test Results
2-PENTANONE, 4-METHYL- (CAS 108-10-1)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow (Pimephales promelas) 492 - 593 mg/l, 96 hours
ETHANOL (CAS 64-17-5)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea (Daphnia magna) 7.7 - 11.2 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) > 100 mg/l, 96 hours
METHANOL (CAS 67-56-1)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea (Daphnia magna) > 10000 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) > 100 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential**

**Partition coefficient n-octanol / water (log Kow)**

2-PENTANONE, 4-METHYL-	1.31
ETHANOL	-0.31
METHANOL	-0.77

Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. Transport information

#### DOT

UN number	UN1170
UN proper shipping name	ETHANOL SOLUTIONS
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
ERG number	127

DOT information on packaging may be different from that listed.

#### DOT



General information                      IMDG Regulated Marine Pollutant.

### 15. Regulatory information

**US federal regulations**                      This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

2-PENTANONE, 4-METHYL- (CAS 108-10-1)	Listed.
METHANOL (CAS 67-56-1)	Listed.

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

<b>Hazard categories</b>	Immediate Hazard - Yes
	Delayed Hazard - Yes
	Fire Hazard - Yes
	Pressure Hazard - No
	Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
METHANOL	67-56-1	3.81

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

2-PENTANONE, 4-METHYL- (CAS 108-10-1)

METHANOL (CAS 67-56-1)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

2-PENTANONE, 4-METHYL- (CAS 108-10-1) 6715

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

2-PENTANONE, 4-METHYL- (CAS 108-10-1) 35 %WV

**DEA Exempt Chemical Mixtures Code Number**

2-PENTANONE, 4-METHYL- (CAS 108-10-1) 6715

**US state regulations****US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

2-PENTANONE, 4-METHYL- (CAS 108-10-1)

METHANOL (CAS 67-56-1)

**US. Massachusetts RTK - Substance List**

2-PENTANONE, 4-METHYL- (CAS 108-10-1)

ETHANOL (CAS 64-17-5)

METHANOL (CAS 67-56-1)

**US. New Jersey Worker and Community Right-to-Know Act**

2-PENTANONE, 4-METHYL- (CAS 108-10-1)

ETHANOL (CAS 64-17-5)

METHANOL (CAS 67-56-1)

**US. Pennsylvania Worker and Community Right-to-Know Law**

2-PENTANONE, 4-METHYL- (CAS 108-10-1)

ETHANOL (CAS 64-17-5)

METHANOL (CAS 67-56-1)

**US. Rhode Island RTK**

2-PENTANONE, 4-METHYL- (CAS 108-10-1)

METHANOL (CAS 67-56-1)

**US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

2-PENTANONE, 4-METHYL- (CAS 108-10-1) Listed: November 4, 2011

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**

2-PENTANONE, 4-METHYL- (CAS 108-10-1) Listed: March 28, 2014

METHANOL (CAS 67-56-1) Listed: March 16, 2012

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

<b>Issue date</b>	04-02-2015
<b>Revision date</b>	08-07-2015
<b>Version #</b>	04
<b>HMIS® ratings</b>	Health: 3* Flammability: 3 Physical hazard: 0
<b>NFPA ratings</b>	Health: 3 Flammability: 3 Instability: 0
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