

+1.703.527.3887 (INT)

SAFETY DATA SHEET

Solv KK006, 200 Proof
This SDS is valid for all grades and catalog #'s

1. IDENTIFICATION OF SUBSTANCE / MIXTURE AND OF SUPPLIER

Product Identifier: Denatured Ethanol

Synonyms: Denatured Ethanol, Industrial Alcohol; Ethanol denatured with

Isopropanol, Methanol, and MIBK

Other means of identification: Not available Recommended use of the chemical and restrictions on use:

Special industrial solvents are intended for use as ingredients or solvents in manufacturing processes and shall not be distributed through retail channels for sale as consumer commodities for personal or household use. When a special industrial solvent is used in the manufacture of an article for sale, sufficient ingredients shall be added to definitely change the composition and character of the special industrial solvent. A special industrial solvent shall not be reprocessed into another solvent intended for sale if the other solvent would contain more than 50% alcohol by volume.

Supplier Details:

Greenfield Global USA, Inc.1101 Isaac Shelby Drive, Shelbyville,
58 Vale Road, Brookfield,

KY 40065, USA.CT 06804, USA.Tel: 502.232.7600Tel: 203.740.3471Fax: 502.633.6100Fax: 203.740.3481

CCN17213 CCN17213

Emergency Contact: CHEMTREC: 1.800.424.9300 (USA) / +1.703.527.3887 (International)

2. HAZARDS IDENTIFICATION

Emergency Overview:

This material is considered hazardous in accordance to OSHA hazardous Communication guidelines. Material is flammable and can burn with little to no visible flame.

OSHA Hazards:

Flammable liquid, Target Organ Effect, Irritant, Toxic by inhalation, Toxic by ingestion, Toxic by skin absorption

Target Organs:

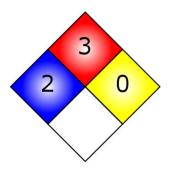
Cardiovascular system, Central nervous system, Eyes, Gastrointestinal tract, Kidney, Liver

SDS: 989 Revision Date: 09.16.15 Revision Number: 4.0 Initials: EF

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Product Information: 203.740.3471 Emergency Assistance (CHEMTREC): 1.800.424.9300 (USA)
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GHS label elements, including precautionary statements







Signal Word:

DANGER!

Hazard statement(s)

H225 Highly flammable liquid and vapor.

H302 Harmful if swallowed.
H315 Causes skin irritation.

H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H370 May cause damage to organs.

Precautionary statement(s)

P501 Dispose of contents and container to an approved waste disposal plant.

P240 Ground/bond container and receiving equipment.
P337 + P313 If eye irritation persists: Get medical attention.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. Seek

medical attention.

P303 + P361 + P353 IF ON SKIN (or hair): Remove immediately all contaminated clothing.

Rinse skin with water.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for

extinction.

P210 Keep away from heat, sparks, open flames, and hot surfaces. No



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P233 Keep container tightly closed.

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

P243 Take precautionary measures against static discharge.

P241 Use explosion-proof electrical, ventilating, and lighting equipment.

P242 Use only non-sparking tools.

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves and eye and face protection.

GHS Classification(s)

Acute toxicity, Oral (Category 4)

Eye irritation (Category 2A)

Flammable Liquids (Category 2)

Skin irritation (Category 2)

Specific target organ toxicity - single exposure (Category 1)

Specific target organ toxicity - single exposure (Category 3)

Other hazards which do not result in classification:

Potential Health Effects:

| Organ | Description |
|------------|--|
| Eyes | Can cause eye irritation such as stinging, tearing, and redness. |
| Ingestion | Ingestion can cause dizziness, faintness, drowsiness decreased awareness or responsiveness, nausea, vomiting, staggering gait, lack of coordination, coma and death. |
| Inhalation | High vapor concentration can cause burning sensation in nose and throat and stinging and watering in the eyes. At concentrations which amount to irritation, dizziness, faintness, drowsiness, nausea and vomiting can also occur. |
| Skin | Can cause irritation to the skin. Prolonged or repeated contact may cause defatting and drying of the skin. |
| Chronic | Long term repeated oral exposure to ethanol may result in the development of progressive liver injury with fibrosis. Overexposure to methanol may cause eye damage and liver or kidney injury. |

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical identity: SOLV KK006, 200 PROOF

Common name / Synonym: Denatured Ethanol, Industrial Alcohol; Ethanol denatured with

Isopropanol, Methanol, and MIBK

UN #: 1987

| % Volume | Material | CAS |
|----------|------------------------|----------|
| 9.01 | Isopropyl Alcohol | 67-63-0 |
| 4.29 | Methanol | 67-56-1 |
| 0.90 | Methyl Isobutyl Ketone | 108-10-1 |
| 88.5 | Ethanol | 64-17-5 |



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4. FIRST AID MEASURES

General advice

Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid. Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Skin

Wash skin with soap and copious amounts of water. Seek medical attention.

Inhalation

Remove person to fresh air. If signs/symptoms continue, get medical attention. Give oxygen or artificial respiration as needed.

Eyes

Thoroughly flush the eyes with large amounts of clean low-pressure water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek medical attention.

Ingestion

DO NOT induce vomiting. If vomiting does occur, have victim lean forward to prevent aspiration. Rinse mouth with water. Seek medical attention. Never give anything by mouth to an unconscious individual.

Note to Physician

Symptoms vary with alcohol level of the blood. Mild alcohol intoxication occurs at blood levels between 0.05- 0.15 %. Approximately 25% of individuals show signs of intoxication at these levels. Above 0.15% the person is definitely under the influence of ethanol; 50-95% of individuals are clinically intoxicated at these levels. Severe poisoning occurs when the blood is ethanol level is 0.3- 0.5%. Above 0.5% the individual will be comatose and death can occur. The unabsorbed ethanol should be removed by gastric lavage after intubating the patient to prevent aspiration. Avoid the use of depressant drugs or the excessive administration of fluids.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products):

Carbon oxides expected to be the primary hazardous combustion product.

Special protective equipment and precautions for firefighters:

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Keep unopened containers cool by spraying with water.

Unusual Fire and Explosion Hazards:

May produce a floating fire hazard.



• Static ignition hazard can result from handling and use.

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- · Vapors may settle in low or confined spaces.
- Vapors may travel to source of ignition and flash back.

Alcohols burn with a pale blue flame which may be extremely hard to see under normal lighting conditions. Personnel may only be able to feel the heat of the fire without seeing flames. Extreme caution must be exercised in fighting alcohol fires. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. Always stay away from tanks engulfed in fire.

Flammable Properties

Classification

OSHA/NFPA Class IB Flammable Liquid.

Flash point

14°C (57°F) - closed cup

Autoignition temperature

363°C (685.4°F)

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Do not inhale vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precautions:

Stop leak. Contain spill if possible and safe to do so. Prevent product from entering drains.

Methods and materials for containment and cleaning up:

Absorb with an inert dry material and place in an appropriate waste disposal container. Keep disposal containers closed when finished.

7. HANDLING AND STORAGE

Precautions for safe handling:

Do not get on skin or in eyes. Do not inhale vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge. Open and handle container with care. Metal containers involved in the transfer of this material should be grounded and bonded.

Conditions for safe storage, including any incompatibilites:

Keep container tightly closed in a cool, dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leaks/spills. Consult local fire codes for additional storage information.



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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters, e.g., occupational exposure limit values or biological limit values:

Occupational Exposure Limits

| Component | Source | Type | Value | Note |
|------------------------|-------------|------|---------------------------|---|
| Ethyl alcohol | US (OSHA) | TWA | 1000 ppm / 1,900 mg/m3 | 29 CFR 1910.1000 Table Z-1 Limits for Air Contaminants. |
| Isopropyl Alcohol | US(ACGIH) | STEL | 400 ppm | |
| Isopropyl Alcohol | US (ACGIH) | TWA | 200 ppm | |
| Methanol | US (OSHA) | STEL | 250 ppm, 325 mg/m3 | 29 CFR 1910.1000 Table Z-1 Limits for Air Contaminants. |
| Methanol | USA (ACGIH) | WA | 200 ppm | ACGIH Treshold Limit Value |
| Methyl Isobutyl Ketone | US (ACGIH) | STEL | 75 ppm | |
| Methyl Isobutyl Ketone | US (ACGIH) | TWA | 50 ppm | |

Appropriate engineering controls:

General room or local exhaust ventilation is usually required to meet exposure limit(s). Electrical equipment should be grounded and conform to applicable electrical code.

Individual protection measures, such as personal protective equipment:

Respiratory protection:

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection:

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection:

Use chemical safety goggles and/or a full face shield where splashing is possible. Use equipment approved by appropriate government standards, such as NIOSH (US) or EN166 (EU) Maintain eye wash fountain and quick-drench facilities in work area.

Skin and body protection:

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.



Product Information: 203.740.3471 Emergency Assistance (CHEMTREC): 1.800.424.9300 (USA) 9. PHYSICAL AND CHEMICAL PROPERTIES +1.703.527.3887 (INT)

| 5.1 III GIGAL AND GITEIMIGAL I KOI EK | 11.700.027.0007 (1111) |
|--|---|
| Appearance (physical state, color, etc.) | Liquid. Colorless. |
| Odor | Specific data not available |
| Odor threshold | Specific data not available |
| pH | Specific data not available |
| Freezing point | -114°C (-173°F) |
| Initial boiling point and boiling range | 80°C (176°F) |
| Flash point | 14°C (57°F) - closed cup |
| Evaporation rate | Specific data not available - expected to be rapid. |
| Flammability (solid, gas) | Flammable |
| Upper / Lower flammability or explosive limits | 19%(V) / 3.3%(V) |
| Vapor pressure | 44.6mmHg (5.94 kPa) |
| Vapor Density | 1.6 (air =1) |
| Relative Density | Specific data not available |
| Solubility(ies) | completely soluble |
| Partition coefficient n-octanol/water(ies) | Specific data not available |
| Auto-ignition temperature | 363 °C (685 °F) |
| Decomposition temperature | Specific data not available |
| Formula (ETHANOL) | C2H6O |
| Formula (ISOPROPYL ALCOHOL) | C3H8O |
| Formula (METHYL ALCOHOL) | CH4O |
| Formula (METHYL ISOBUTYL KETONE) | C6H12O |
| Molecular Weight (ETHANOL) | 46.07 g/mol |
| Molecular Weight (ISOPROPYL ALCOHOL) | 60.1 g/mol |
| Molecular Weight (METHYL ALCOHOL) | 32.04 g/mol |
| Molecular Weight (METHYL ISOBUTYL KETONE) | 100.16 g/mol |

10. STABILITY AND REACTIVITY

| Possibility of hazardous reactions | Vapors may form explosive mixture with air. |
|--|--|
| Conditions to avoid (e.g., static discharge, | Heat, flames, and sparks. Extreme temperatures and direct |
| shock or vibration) | sunlight. |
| Incompatible materials | Strong acids, strong oxidizing agents |
| Hezerdous decomposition products | Carbon oxides are expected to be, under fire conditions, the |
| Hazardous decomposition products | primary hazardous decomposition products. |

11. TOXICOLOGICAL INFORMATION

• Ethyl Alcohol 64-17-5

Signs and Symptoms of Exposure

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.



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Product Summary:

Ethanol is not toxic by OSHA standards. Coingestion of sedative hypnotics or tranquilizers can increase the toxic affects of ethanol.

Acute Toxicity:

| LC50 (inhl) | Rat | 20000ppm | 10 hrs. |
|-------------|-------|----------------|---------|
| LC50 (Oral) | Rat | 7060mg/Kg BWT | |
| LDLo (Oral) | Human | 1400 mg/Kg BWT | |

Irritation:

Eyes (ETHANOL)

Eye exposure to Ethanol generally causes transient pain, irritation, and reflex lid closure. A foreign-body sensation may persist for one to two days. Vapors produce transient stinging and tearing, but no apparent adverse effects. Transiently impaired preception of color may occur with acute ingestion or chronic alcoholism. Standard Draize eye test (rabbit) - Dose: 500 mg Reaction: Severe Dose: 500 mg/24 hrs Reaction: Mild

Skin

Standard Draize skin test (rabbit) - Dose: 20 mg/24 hrs Reaction: Moderate Repeated exposure may cause skin dryness or cracking.

Carcinogenicity

IARC: Not classifiable as a human carcinogen. ACGIH: Not classifiable as a human carcinogen. NTP: Not classifiable as a human carcinogen. OSHA: Not classifiable as a human carcinogen.

Other Hazards

| Organ | Description |
|------------|--|
| Eyes | Irritating to the eyes. May cause painful sensitization to light. May cause chemical conjunctivitis and corneal damage. |
| Ingestion | May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause systemic toxicity with acidosis. Advanced stages can lead to respiratory failure, kidney failure, coma, and death. |
| Inhalation | Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. Causes respiratory tract irritation. May cause narcotic effects in high concentration. Vapors may cause dizziness or suffocation. |
| Skin | Mildly irritating to the skin. May cause dermatitis by de-fatting the skin from prolonged or repeated contact. |
| Chronic | Prolonged exposure can cause liver, kidney, and heart damage. Long term exposure can cause loss of appetite, weight loss, nervousness, memory loss, mental retardation. |

• Methyl Alcohol 67-56-1



Product Information: 203.740.3471 Emergency Assistance (CHEMTREC): 1.800.424.9300 (USA) Product Summary: +1.703.527.3887 (INT)

Classification of teratogenicity or reproductive toxicity cannot be determined with available data for this product. No data available to designate the product as causing specific target organ toxicity through repeated exposure. No data available to designate product as an aspiration hazard.

Acute Toxicity:

| LC50 (Inhl) | Rat | 64,000 mg/Kg BWT | 4 hours |
|-------------|--------|------------------|---------|
| LD50 (Oral) | Rat | 5,628 mg/Kg BWT | |
| LD50 (Skin) | Rabbit | 15,800 mg/Kg BWT | |

Irritation:

Eyes (METHANOL)

Direct contact with the eyes produces a mild, reversible irritation, assuming treatment is initiated promptly. Methanol ingestion or inhalation can lead to visual disturbance that can proceed to blindness.

Skin

Standard Draize skin test (rabbit) - Dose: 20 mg/24 hrs Reaction: Moderate Repeated exposure may cause skin dryness or cracking.

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Other Hazards

| Organ | Description |
|------------|--|
| Eyes | Irritating to the eyes. |
| Ingestion | Poison, may be fatal or cause blindness if swallowed. Cannot be made non-poisonous. Ingestion may |
| lingestion | cause gastrointestinal irritation, nausea, vomiting and diarrhea. |
| Inhalation | Toxic by inhalation. Vapor harmful. May be irritating to the respiratory tract. |
| Skin | Toxic in contact with skin. Irritating to skin. |
| Chronic | Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. Experiments have shown reproductive toxicity effects on laboratory animals. May cause adverse liver effects. May cause adverse kidney effects. Methanol is slowly eliminated from the body, therefore it can have cumulative toxicity effects with repeated exposures. |

• Isopropyl Alcohol 67-63-0



Product Information: 203.740.3471 Emergency Assistance (CHEMTREC): 1.800.424.9300 (USA) Product Summary: +1.703.527.3887 (INT)

Long-term exposure (2 years) to Isopropyl Alcohol via inhalation at concentrations up to 5000 ppm caused no exposure related increases in tumors in animals. No data available for the teratogenicity, mutagenicity, or reproductive toxicity of this product. No data available to designate the product as causing specific target organ toxicity through repeated exposure. No data available to designate product as an aspiration hazard.

Acute Toxicity:

| LC50 (vapor) | Rat | 19,000 ppm | 8 hours |
|--------------|--------|--------------|---------|
| LD50 (oral) | Rat | 4,396 mg/kg | |
| LD50 (skin) | Rabbit | 12,870 mg/kg | |

Irritation:

Eyes

Rabbit - Irritating to eyes - 24 hours

Eyes (ISOPROPANOL)

Mildly irritating to the eye at an airborne concentration of 400 ppm, unpleasant at 800 ppm.

Skin

Moderate skin irritant

Carcinogenicity

IARC: Group 3: Not classifiable as to its carcinogenicity to humans.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Other Hazards

| Organ | Description |
|-----------|---|
| - Fyee | Produces irritation, characterized by a burning sensation, redness, tearing, inflammation, and possible |
| Eyes | corneal injury. May cause transient corneal injury |
| Ingestion | Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause kidney damage. May |
| | cause central nervous system depression, characterized by excitement, followed by headache, dizziness, |
| | drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible |
| | death due to respiratory failure. |



| Inhalation | Inhalation of high concentrations may cause central nervous system effects characterizes 27.33874. INT) headache, dizziness, unconsciousness and coma. May cause narcotic effects in high concentration. Causes upper respiratory tract irritation. Inhalation of vapors may cause drowsiness and dizziness. Aspiration of material into the lungs may cause chemical pneumonitis, which may be fatal. The probable oral lethal dose in humans is 240 ml (2696 mg/kg), but ingestion of only 20 ml (224 mg/kg) has caused poisoning. |
|------------|--|
| Skin | May cause irritation with pain and stinging, especially if the skin is abraded. Isopropanol has a low potential to cause allergic skin reactions; however, rare cases of allergic contact dermatitis have been reported. May be absorbed through intact skin. Dermal absorption has been considered toxicologically insignificant. |
| Chronic | Prolonged exposure can be irritating to mucous membranes, skin, and the respiratory system. Can cause liver and kidney damage. |

• Methyl Isobutyl Ketone 108-10-1

Product Summary:

Laboratory tests have shown teratogenic effects. No data available for the mutagenic or reproductive effects of the product. No data available to designate the product as causing specific target organ toxicity through single or repeated exposure. No data available to designate product as an aspiration hazard.

Acute Toxicity:

| LC50 (Inhalation) | Rat | 16.4 mg/m3 | 4 hours |
|-------------------|--------|----------------|---------|
| LD50 (Dermal) | Rabbit | > 16,000 mg/kg | |
| LD50 (Oral) | Rat | 2,080 mg/kg | |

Irritation:

Eyes (METHYL ISOBUTYL KETONE)

Rabbit - Moderate eye irritation - 24 hours

Skin

Rabbit - skin irritation - 24 hours

Teratogenicity (METHYL ISOBUTYL KETONE)

Methyl Isobutyl Ketone is teratogenic. Fetal death and developmental abnormalities occurred in the babies of mice that inhaled Methyl isobutyl ketone.

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen



Product Information: 203.740.3471 Emergency Assistance (CHEMTREC): 1.800.424.9300 (USA) or potential carcinogen by OSHA. +1.703.527.3887 (INT)

Other Hazards

| Organ | Description | |
|------------|---|--|
| Eyes | Can be irritating to the eyes. | |
| Ingestion | Can be harmful if ingested. | |
| Inhalation | Can be harmful, causing respiratory tract irritation, if inhaled. | |
| Skin | Can be harmful, causing irritation, if absorbed through the skin. | |

12. ECOLOGICAL INFORMATION

• Ethyl Alcohol 64-17-5

Ecotoxicity (aquatic and terrestrial, where available):

Acute Fish toxicity (ETHANOL)

LC50 / 96 HOUR Oncorhynchus mykiss (rainbow trout) > 10,000 mg/l LC50 / 96 HOUR Pimephales promelas (fathead minnow) > 13,400 mg/l

Toxicity to aquatic plants (ETHANOL)

Growth inhibition / 96 HOURS Chlorella vulgaris (Fresh water algae) 1,000 mg/l

Toxicity to microorganisms (ETHANOL)

Toxicity Threshold / Pseudomonas putida 6,500 mg/l Summary: Inhibition of cell multiplication begins.

Persistence and degradability:

Biodegradation is expected.

Bioaccumulative potential:

Biaccumulation is unlikely

• Isopropyl Alcohol 67-63-0

Ecotoxicity (aquatic and terrestrial, where available):

Acute Fish Toxicity (ISOPROPANOL)

LC50 / 96 hours Pimephales promelas: 9,640 mg/L

Toxic to Daphnia and Other Aquatic Invertebrates



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Toxicity to Aquatic Plants (ISOPROPANOI)

EC50 / 72 hours Scenedesmus subspicatus > 1,000 mg/L

Persistence and degradability:

No data available

Bioaccumulative potential:

No data available

Methyl Alcohol 67-56-1

Ecotoxicity (aquatic and terrestrial, where available):

Acute Fish Toxicity (METHANOL)

LC50 / 96 hours Lepomis macrocirus: 15,400 mg/L / LC50 / 96 hours Fathead minnow: 29,400 mg/L

Toxicity to Aquatic Plants (METHANOL)

EC50 / 96 hours Scenedesmus capricornutum: 22,000 mg/L

Persistence and degradability:

This material is expected to be readily biodegradable. There is evidence that it is degraded under anaerobic conditions.

Bioaccumulative potential:

Bioconcentration factor (BCF) of 0.2. This material is not expected to bioaccumulate.

Other adverse effects:

BOD: 600 mg/g - 1120 mg/g COD: 1420 mg/g

Methyl Isobutyl Ketone 108-10-1

Ecotoxicity (aquatic and terrestrial, where available):

Acute Toxicity to Fish (METHYL ISOBUTYL KETONE)

LC50 / 48 hours Leuciscus idus melanotus- 480 mg/L

Toxicity to Aquatic Plants (METHYL ISOBUTYL KETONE)

EC50 / 48 hours Green algae- 2,000 mg/L

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Product Information: 203.740.3471 Emergency Assistance (CHEMTREC): 1.800.424.9300 (USA)
Persistence and degradability: +1.703.527.3887 (INT)

Biotic/ Aerobic

Bioaccumulative potential:

No data available

13. DISPOSAL CONSIDERATIONS

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging:

Vapors may collect in empty containers. Treat empty containers as hazardous. Dispose of spill-clean up and other wastes in accordance with Federal, State, and local regulations.

14. TRANSPORT INFORMATION

Description of waste residues and information on their safe handling and methods of disposal:

| • | · |
|-------------------------------|---|
| UN number | 1987 |
| UN proper shipping name | Alcohols, n.o.s. (Ethanol, Isopropanol) |
| Transport hazard class(es) | 3 |
| Packing group (if applicable) | II |

IMDG

UN-Number: 1987 Class: 3 Packing Group: II

EMS-No: F-E, S-D

Proper shipping name: ALCOHOLS, N.O.S. (ETHANOL, ISOPROPANOL)

Marine pollutant: No

IATA

UN-Number: 1987 Class: 3 Packing Group: II

Proper shipping name: Alcohols, n.o.s. (Ethanol, Isopropanol)

15. REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product in question:

OSHA Hazards

Flammable liquid, Target Organ Effect, Irritant, Toxic by inhalation, Toxic by ingestion, Toxic by skin absorption

All ingredients are on the following inventories or are exempted from listing

| Country | Notification |
|-----------|--------------|
| Australia | AICS |
| Canada | DSL |
| China | IECS |



| European Union | EINECS +1.703.527.3887 (INT) |
|--------------------------|------------------------------|
| Japan | ENCS/ISHL ` ´ |
| Korea | ECL |
| New Zealand | NZIoC |
| Philippines | PICCS |
| United States of America | TSCA |

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313: Methanol CAS-No. 67-56-1 Revision Date 2007-07-01

SARA 311/312 Hazards

Acute Health Hazard Chronic Health Hazard Fire Hazard

CERCLA

Methanol CAS-No. 67-56-1. RQ: 5,000 lbs

Methyl Isobutyl Ketone CAS-No. 108-10-1, RQ: 5,000 lbs

Massachusetts Right To Know Components

Ethanol CAS-No.64-17-5 Revision Date 2007-03-01

Isopropyl Alcohol CAS-No. 67-63-0 Revision Date 1987-01-01

Methanol CAS-No.67-56-1 Revision Date 2007-07-01

Methyl Isobutyl Ketone CAS-No. 108-10-1 Revision Date 1993-04-24

Pennsylvania Right To Know Components

Ethanol CAS-No.64-17-5 Revision Date 2007-03-01

Isopropyl Alcohol CAS-No. 67-63-0 Revision Date 1987-01-01

Methanol CAS-No.67-56-1 Revision Date 2007-07-01

Methyl Isobutyl Ketone CAS-No. 108-10-1 Revision Date 1993-04-24



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New Jersey Right To Know Components

Ethanol CAS-No.64-17-5 Revision Date 2007-03-01

Isopropyl Alcohol CAS-No. 67-63-0 Revision Date 1987-01-01

Methanol CAS-No.67-56-1 Revision Date 2007-07-01

Methyl Isobutyl Ketone CAS-No. 108-10-1 Revision Date 1993-04-24

California Prop 65 Components

WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm (ETHYL ALCOHOL) CAS No. 64-17-5 Revision Date: December 11, 2009

WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. METHANOL CAS-No. 67-56-1 Revision Date 2012-03-16

WARNING! This product contains a chemical known to the State of California to cause cancer. METHYL ISOBUTYL KETONE CAS-No. 108-10-1 Revision Date 2011-11-04

16. OTHER INFORMATION: INCLUDING INFORMATION ON PREPARATION AND REVISION OF THE SDS

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