

**Material Safety Data Sheet**  
**Dehydrant 70%**
**Section 1 - Chemical Product and Company Identification**
**MSDS Name:**

Dehydrant 70%

**Catalog Numbers:**

6501

**Synonyms:**

None known.

**Company Identification:**
 Thermo Fisher Scientific  
 4481 Campus Drive  
 Kalamazoo, MI 49008
**Company Phone Number:**

800-522-7270

**Emergency Phone Number:**

800-424-9300

**CHEMTREC Phone Number, US:**

(800) 424-9300

**CHEMTREC Phone Number, Europe:**

(202) 483-7616

**Section 2 - Composition, Information on Ingredients**

CAS#	Chemical Name:	Percent	EINECS/ ELINCS	Hazard Symbols	Risk Phrases
64-17-5	Ethyl alcohol	63	200-578-6	F	11
7732-18-5	Water	30	231-791-2		
67-56-1	Methyl alcohol	3.5	200-659-6	F T	11 23/24/25 39/23/24/25
67-63-0	Isopropyl alcohol	3.5	200-661-7	F XI	11 36 67

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**Dehydrant 70%****Section 3 - Hazards Identification****EMERGENCY OVERVIEW**

*Appearance: Not available.*

*Danger! Flammable liquid and vapor. Danger of serious damage to health by prolonged exposure through inhalation and if swallowed. Harmful if swallowed, inhaled, or absorbed through the skin. Causes eye, skin, and respiratory tract irritation. Breathing vapors may cause drowsiness and dizziness. May cause central nervous system effects. May cause liver and kidney damage. May cause reproductive and fetal effects. Flash Point: 21°C.*

*Target Organs: Blood, Kidneys, Heart, Central nervous system, Liver, Spleen, Respiratory system, Gastrointestinal system, Eyes, Skin*

**Potential Health Effects****Eye:**

Causes eye irritation.

**Skin:**

Causes skin irritation. Harmful if absorbed through the skin.

**Ingestion:**

Harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause liver and kidney damage. May cause central nervous system effects.

**Inhalation:**

Harmful if inhaled. Causes respiratory tract irritation. Inhalation of vapors may cause drowsiness and dizziness. May cause central nervous system effects.

**Chronic:**

May cause reproductive and fetal effects. Repeated exposure may cause damage to the spleen. Laboratory experiments have resulted in mutagenic effects. Animal studies have reported the development of tumors.

**Section 4 - First Aid Measures****Eyes:**

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Skin:**

Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Ingestion:**

Do not induce vomiting. Get medical aid immediately. Call a poison control center.

**Inhalation:**

Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

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Treat symptomatically and supportively.

**Section 5 - Fire Fighting Measures****General Information:**

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

**Extinguishing Media:**

Use water spray, dry chemical, carbon dioxide, or chemical foam.

**Autoignition Temperature:**

Not applicable.

**Explosion Limits:**

Lower: Not available      Upper: Not available

**Flash Point:**

21°C ( 69.80°F)

**NFPA Rating:**

(estimated) Health: 2; Flammability: 3; Instability: 0

**Section 6 - Accidental Release Measures****General Information:**

Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:**

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Remove all sources of ignition. Use a spark-proof tool. Do not let this chemical enter the environment.

**Section 7 - Handling and Storage****Handling:**

Use spark-proof tools and explosion proof equipment. Do not get in eyes, on skin, or on clothing. Take precautionary measures against static discharges. Keep away from heat, sparks and flame. Do not ingest or inhale. Use only in a chemical fume hood.

**Storage:**

Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area.

**Section 8 - Exposure Controls, Personal Protection****Engineering Controls:**

Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

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**Exposure Limits**

Chemical Name:	ACGIH	NIOSH	OSHA
Ethyl alcohol	1000 ppm TWA	1000 ppm TWA; 1900 mg/m <sup>3</sup> TWA 3300 ppm IDLH (10% LEL)	1000 ppm TWA; 1900 mg/m <sup>3</sup> TWA;
Water	None listed	None listed	None listed
Methyl alcohol	200 ppm TWA; 250 ppm STEL; Skin - potential significant contribution to overall exposure by the cutaneous route	200 ppm TWA; 260 mg/m <sup>3</sup> TWA 6000 ppm IDLH	200 ppm TWA; 260 mg/m <sup>3</sup> TWA;
Isopropyl alcohol	200 ppm TWA; 400 ppm STEL	400 ppm TWA; 980 mg/m <sup>3</sup> TWA 2000 ppm IDLH (10% LEL)	400 ppm TWA; 980 mg/m <sup>3</sup> TWA;

**OSHA Vacated PELs**

Ethyl alcohol: 1000 ppm TWA; 1900 mg/m<sup>3</sup> TWA  
 Methyl alcohol: 200 ppm TWA; 260 mg/m<sup>3</sup> TWA  
 Isopropyl alcohol: 400 ppm TWA; 980 mg/m<sup>3</sup> TWA

**Personal Protective Equipment**
**Eyes:**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:**

Wear appropriate protective gloves to prevent skin exposure.

**Clothing:**

Wear appropriate protective clothing to prevent skin exposure.

**Respirators:**

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Section 9 - Physical and Chemical Properties**

**Physical State:** Liquid

**Color:** No information found

**Odor:** No information found

**pH:** No information found

**Vapor Pressure:** No information found

**Vapor Density:** No information found

**Evaporation Rate:** No information found

**Viscosity:** No information found

**Boiling Point:** No information found

**Freezing/Melting Point:** No information found

**Decomposition Temperature:** No information found

**Solubility in water:** No information found

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**Specific Gravity/Density:** No information found

**Molecular Formula:** Not applicable.

**Molecular Weight:** No information found

**Section 10 - Stability and Reactivity****Chemical Stability:**

Stable under normal temperatures and pressures.

**Conditions to Avoid:**

Incompatible materials, ignition sources, excess heat

**Incompatibilities with Other Materials**

Strong oxidizing agents

**Hazardous Decomposition Products**

Carbon monoxide, carbon dioxide

**Hazardous Polymerization**

Will not occur.

**Section 11 - Toxicological Information****RTECS:**

CAS# 64-17-5: KQ6300000

CAS# 7732-18-5: ZC0110000

CAS# 67-56-1: PC1400000

CAS# 67-63-0: NT8050000

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## CAS# 64-17-5:

Draize test, rabbit, eye: 500 mg Severe  
Draize test, rabbit, eye: 500 mg/24H Mild  
Draize test, rabbit, skin: 20 mg/24H Moderate  
Inhalation, mouse: LC50 = 39 gm/m<sup>3</sup>/4H  
Inhalation, rat: LC50 = 20000 ppm/10H  
Oral, mouse: LD50 = 3450 mg/kg  
Oral, rabbit: LD50 = 6300 mg/kg  
Oral, rat: LD50 = 7060 mg/kg  
Oral, rat: LD50 = 9000 mg/kg.

## CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg.

## CAS# 67-56-1:

Draize test, rabbit, eye: 40 mg Moderate  
Draize test, rabbit, eye: 100 mg/24H Moderate  
Draize test, rabbit, skin: 20 mg/24H Moderate  
Inhalation, rabbit: LC50 = 81000 mg/m<sup>3</sup>/14H  
Inhalation, rat: LC50 = 64000 ppm/4H  
Oral, mouse: LD50 = 7300 mg/kg  
Oral, rabbit: LD50 = 14200 mg/kg  
Oral, rat: LD50 = 5600 mg/kg  
Skin, rabbit: LD50 = 15800 mg/kg.

## CAS# 67-63-0:

Draize test, rabbit, eye: 100 mg Severe  
Draize test, rabbit, eye: 10 mg Moderate  
Draize test, rabbit, eye: 100 mg/24H Moderate  
Draize test, rabbit, skin: 500 mg Mild  
Inhalation, mouse: LC50 = 53000 mg/m<sup>3</sup>  
Inhalation, rat: LC50 = 16000 ppm/8H  
Inhalation, rat: LC50 = 72600 mg/m<sup>3</sup>  
Oral, mouse: LD50 = 3600 mg/kg  
Oral, mouse: LD50 = 3600 mg/kg  
Oral, rabbit: LD50 = 6410 mg/kg  
Oral, rat: LD50 = 5045 mg/kg  
Oral, rat: LD50 = 5000 mg/kg  
Skin, rabbit: LD50 = 12800 mg/kg.

**Carcinogenicity:**

## CAS# 64-17-5

ACGIH: Not listed

California: Not listed

NTP: Not listed

IARC: Group 1 carcinogen

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 67-56-1: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 67-63-0: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:**

Tumorigenic effects have been reported in experimental animals.

**Teratogenicity:**

Teratogenic effects have occurred in humans.

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**Reproductive:**

Adverse reproductive effects have occurred in humans.

**Mutagenicity:**

Mutagenic effects have occurred in humans.

**Neurotoxicity:**

No information found

**Other:**

The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

**Section 12 - Ecological Information**
**Ecotoxicity:**

No information found

**Environmental:**

No information found

**Physical:**

No information found

**Other:**

Do not empty into drains.

**Section 13 - Disposal Considerations**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Part 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P Series Wastes**

None of the components are on this list.

**RCRA U Series Wastes**

CAS# 67-56-1: waste number U154 (Ignitable waste).

**Section 14 - Transport Information**
**US DOT****Canadian TDG**

**Proper Shipping Name:** ETHANOL SOLUTION  
**Hazard Class:** 3  
**UN Number:** UN1170  
**Packing Group:** II

ETHANOL SOLUTION  
 3  
 UN1170  
 II

USA RQ: CAS# 67-56-1: 5000 lb final RQ; 2270 kg final RQ

**Material Safety Data Sheet**  
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CAS# 64-17-5 is listed on the TSCA Inventory.  
CAS# 7732-18-5 is listed on the TSCA Inventory.  
CAS# 67-56-1 is listed on the TSCA Inventory.  
CAS# 67-63-0 is listed on the TSCA Inventory.

**Health and Safety Reporting List**

CAS# 67-63-0: Effective 12/15/86, Sunset 12/15/96

**Chemical Test Rules**

CAS# 67-63-0: 40 CFR 799.2325

**TSCA Section 12b**

None of the components are on this list.

**TSCA Significant New Use Rule (SNUR)**

None of the components are on this list.

**CERCLA Hazardous Substances and corresponding RQs**

CAS# 67-56-1: 5000 lb final RQ; 2270 kg final RQ

**SARA Section 302 Extremely Hazardous Substances**

None of the components are on this list.

**SARA Hazard Categories**

CAS# 64-17-5: immediate, delayed, fire.  
CAS# 67-56-1: immediate, fire.  
CAS# 67-63-0: immediate, delayed, fire.

**SARA Section 313**

This material contains Methyl alcohol (CAS# 67-56-1, 3.5%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 372.

This material contains Isopropyl alcohol (CAS# 67-63-0, 3.5%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 372.

**Clean Air Act - Hazardous Air Pollutants (HAPs)**

CAS# 67-56-1 is listed as a hazardous air pollutant (HAP).

**Clean Air Act - Class 1 Ozone Depletors**

None of the components are on this list.

**Clean Air Act - Class 2 Ozone Depletors**

None of the components are on this list.

**Clean Water Act - Hazardous Substances**

None of the components are on this list.

**Clean Water Act - Priority Pollutants**

None of the components are on this list.

**Clean Water Act - Toxic Pollutants**

None of the components are on this list.

**OSHA - Highly Hazardous**

None of the components are on this list.

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None of the components are on this list.

**US State****State Right to Know**

Ethyl alcohol can be found on the following state Right-to-Know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

Methyl alcohol can be found on the following state Right-to-Know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

Isopropyl alcohol can be found on the following state Right-to-Know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

**California Prop 65**

None of the components are on this list.

**California No Significant Risk Level**

None of the components are on this list.

None of the components are on this list.

None of the components are on this list.

None of the components are on this list.

**European/International Regulations****European Labelling in Accordance with EC Directives:**

Hazard Symbols: F XN

Risk Phrases: R 11 Highly flammable.

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R 36 Irritating to eyes.

R 48/20/21/22 Harmful : danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.

R 67 Vapours may cause drowsiness and dizziness.

Safety Phrases: S 7 Keep container tightly closed.

S 16 Keep away from sources of ignition - No smoking.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**WGK (Water Danger/Protection)**

No information found

**United Kingdom Occupational Exposure Limits**

No information found

**United Kingdom Maximum Exposure Limits**

No information found

**Canadian DSL/NDSL**

CAS# 64-17-5 is listed on Canada's DSL List.

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 67-56-1 is listed on Canada's DSL List.

CAS# 67-63-0 is listed on Canada's DSL List.

**Canadian WHMIS Classifications**

This product has a WHMIS classification of B2, D1B, D2A, D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

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CAS# 64-17-5 is listed on the Canadian Ingredient Disclosure List.

CAS# 67-56-1 is listed on the Canadian Ingredient Disclosure List.

CAS# 67-63-0 is listed on the Canadian Ingredient Disclosure List.

**Section 16 - Other Information**

No information found

MSDS Creation Date: June 9, 2008

Revision Date: June 9, 2008

**Revisions were made in Sections:**

2, 3, 15

*This MSDS is intended for review and guidance in the receipt, storage, handling, use and disposal of product purchased from us, and for no other purpose. Use this product only as directed and in accordance with applicable instructions and warnings provided with the product. Please consult your institution's policies regarding use of this product. If you have obtained this MSDS other than in connection with the supply of this product from us, this MSDS should be consulted for general information only, and should not be relied upon for any purpose. As with the use of all hazardous materials, you should in all instances follow the guidance of the MSDS provided or available with the specific product purchased.*