

Material Safety Data Sheet

Diacetone Alcohol

ACC# 06460

Section 1 - Chemical Product and Company Identification

MSDS Name: Diacetone Alcohol

Catalog Numbers: AC121480200, D17 4, D17-4, D174, NC9951767, XxD17208LI

Synonyms: 4-Hydroxy-4-Methyl-2-Pentanone; Diacetone

Company Identification:

Fisher Scientific

1 Reagent Lane

Fair Lawn, NJ 07410

For information, call: 201-796-7100

Emergency Number: 201-796-7100

For CHEMTREC assistance, call: 800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
123-42-2	Diacetone alcohol	99.0	204-626-7

Hazard Symbols: Xi

Risk Phrases: 36

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colorless liquid. Flash Point: 58 deg C. Causes eye irritation. May cause central nervous system depression. **Warning!**

Combustible liquid and vapor. May cause skin irritation. May cause respiratory and digestive tract irritation. Aspiration hazard if swallowed. Can enter lungs and cause damage. May cause liver and kidney damage.

Target Organs: Kidneys, central nervous system, liver.

Potential Health Effects

Eye: Causes eye irritation. May cause transient corneal injury.

Skin: Prolonged and/or repeated contact may cause irritation and/or dermatitis.

Ingestion: Aspiration hazard. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause liver and kidney damage. Aspiration of material into the lungs may cause chemical pneumonitis, which may be fatal. May cause headache. May cause unconsciousness. May cause central nervous system depression. May cause damage to the red blood cells.

Inhalation: May cause respiratory tract irritation. May cause effects similar to those described for ingestion. May cause narcotic effects in high concentration. Aspiration may cause respiratory swelling and pneumonitis. Aspiration may lead to pulmonary edema.

Chronic: Prolonged or repeated skin contact may cause dermatitis. May cause liver and kidney damage.

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.

Skin: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.

Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Notes to Physician: 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. Vapors can travel to a source of ignition and flash back. Use water spray to keep fire-exposed containers cool. Combustible liquid. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Containers may explode when heated.

Extinguishing Media: Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material. In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Use water spray to cool fire-exposed containers.

Flash Point: 58 deg C (136.40 deg F)

Autoignition Temperature: 643 deg C (1,189.40 deg F)

Explosion Limits, Lower:1.8

Upper: 6.9

NFPA Rating: (estimated) Health: 2; Flammability: 2; 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. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Scoop up with a nonsparking tool, then place into a suitable container for disposal. Remove all sources of ignition. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Use only in a well-ventilated area. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage: Keep away from heat, sparks, and flame. Keep away from heat and flame. Keep away from sources of ignition. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Diacetone alcohol	50 ppm TWA	50 ppm TWA; 240 mg/m ³ TWA 1800 ppm IDLH	50 ppm TWA; 240 mg/m ³ TWA

OSHA Vacated PELs: Diacetone alcohol: 50 ppm TWA; 240 mg/m³ 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. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: colorless

Odor: mild odor - ketone odor

pH: Not available.

Vapor Pressure: .8 mm Hg @20C

Vapor Density: 4.0 (air=1)

Evaporation Rate:43.5 (CCl₄=1)

Viscosity: Not available.

Boiling Point: 164 deg C

Freezing/Melting Point:-47 deg C

Decomposition Temperature:Not available.

Solubility: Miscible in water.

Specific Gravity/Density:0.9

Molecular Formula:C₆H₁₂O₂

Molecular Weight:116.0828

Section 10 - Stability and Reactivity

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid: Incompatible materials, ignition sources, excess heat.

Incompatibilities with Other Materials: Oxidizing agents

Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 123-42-2: SA9100000

LD50/LC50:

CAS# 123-42-2:

Draize test, rabbit, eye: 20 mg Severe;

Draize test, rabbit, eye: 100 uL/24H Severe;

Oral, mouse: LD50 = 3950 mg/kg;

Oral, mouse: LD50 = 3000 mg/kg;

Oral, rat: LD50 = 2520 mg/kg;

Oral, rat: LD50 = 4000 mg/kg;

Skin, rabbit: LD50 = 13500 mg/kg;

Carcinogenicity:

CAS# 123-42-2: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology: No information available.

Teratogenicity: No information available.

Reproductive Effects: No information available.

Neurotoxicity: No information available.

Mutagenicity: No information available.

Other Studies: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity: Fish: Bluegill/Sunfish: LC50 = 420 mg/L; 96 Hr.; Static Conditions, 23 degrees CFish: Goldfish: LC50 = 5000 mg/L; 24 Hr.; Unspecified ConditionsWater flea EC50 = 8750 mg/L; 48 Hr.; Microtox test No data available.

Environmental: Based on its low melting and boiling points, this chemical is expected to volatilize.

Physical: No information available.

Other: No information available.

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 Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	DIACETONE ALCOHOL				No information available.
Hazard Class:	3				
UN Number:	UN1148				
Packing Group:	III				

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 123-42-2 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 123-42-2: acute, chronic, flammable.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 123-42-2 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts. California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

XI

Risk Phrases:

R 36 Irritating to eyes.

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 123-42-2: 1

Canada - DSL/NDSL

CAS# 123-42-2 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of B3, D2B.

Canadian Ingredient Disclosure List

CAS# 123-42-2 is listed on the Canadian Ingredient Disclosure List.

Exposure Limits

CAS# 123-42-2: OEL-AUSTRALIA:TWA 50 ppm (240 mg/m³) OEL-AUSTRIA:TWA 50 ppm (240 mg/m³) OEL-BELGIUM:TWA 50 ppm (238 mg/m³) OEL-DENMARK:TWA 50 ppm (240 mg/m³) OEL-FINLAND:TWA 50 ppm (240 mg/m³);STEL 75 ppm (360 mg/m³) OEL-FRANCE:TWA 50 ppm (240 mg/m³) OEL-GERMANY:TWA 50 ppm (240 mg/m³) OEL-THE NETHERLANDS:TWA 50 ppm (240 mg/m³) OEL-THE PHILIPPINES:TWA 50 ppm (240 mg/m³) OEL-RUSSIA:STEL 100 mg/m³ OEL-SWITZERLAND:TWA 50 ppm (240 mg/m³) OEL-TURKEY:TWA 50 ppm (240 mg/m³) OEL-UNITED KINGDOM:TWA 50 ppm (240 mg/m³);STEL 75 ppm OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

Section 16 - Additional Information

MSDS Creation Date: 6/16/1999

Revision #3 Date: 3/18/2003

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