

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

Product name: Diacetone Alcohol
CAS Number: 123-42-2

Other means of identification

Synonyms: 2-Methyl-2-pentanol-4-one
4-Hydroxy-2-keto-4-methylpentane
4-Hydroxy-4-methyl pentan-2-one
4-Hydroxy-4-methyl-2-pentanone
4-Hydroxy-4-methylpentanone-2

RTECS# SA9100000

Recommended use of the chemical and restrictions on use

Recommended use: Solvent. In photographic films and plates. In photographic films. Inks.
Uses advised against No information available

Details of the supplier of the safety data sheet

Company
Lab Alley, LLC
12501 Pauls Valley Road, Suite A,
Austin, TX 78737 U.S.A
Telephone 512-668-9918
Fax 512-886-4008

Emergency telephone

Emergency Phone # US & Canada: 1-800-535-5053 INFOTRACK
International 1-352-323-3500 INFOTRACK

SECTION 2: HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Inhalation (Vapors)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (single exposure)	Category 3
Flammable liquids	Category 3

Label elements

Warning

Hazard statements

Harmful if inhaled
Causes skin irritation
Causes serious eye irritation
May cause respiratory irritation. May cause drowsiness or dizziness
Flammable liquid and vapor



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

May be harmful if swallowed

Precautionary Statements - Prevention

Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves
Wear eye/face protection
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
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 eat, drink or smoke when using this product

Precautionary Statements - Response

In case of fire: Use CO₂, dry chemical, or foam to extinguish.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of water
If skin irritation occurs: Get medical advice/attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
IF SWALLOWED
Rinse mouth

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed
Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Diacetone Alcohol	123-42-2	100

SECTION 4: FIRST AID MEASURES**First aid measures****General Advice:**

National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222

Skin Contact:

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact:

Flush eyes with water for 15 minutes. Get medical attention.

Inhalation:

Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

Ingestion:

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed**Symptoms**

Moderate eye irritation. Moderate skin irritation. Irritating to respiratory system. Nausea. Vomiting. Central nervous system effects. Dizziness. Drowsiness. anesthetic. Fatigue. Narcosis. Headache. May affect respiration. Respiratory depression. It may affect the kidneys. May affect the liver.

Indication of any immediate medical attention and special treatment needed**Notes to Physician:**

Treat symptomatically

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

SECTION 5: FIRE-FIGHTING MEASURES**Extinguishing Media****Suitable Extinguishing Media:**

Carbon dioxide (CO₂). Dry chemical. Alcohol-resistant foam. Water spray.

Unsuitable Extinguishing Media:

Do not use a solid (straight) water stream as it may scatter and spread fire.

Specific hazards arising from the chemical**Hazardous Combustion Products:**

Carbon monoxide; carbon dioxide

Specific hazards:

Flammable
May be ignited by heat, sparks or flames
Vapor may travel considerable distance to source of ignition and flash back
Vapors may form explosive mixtures with air
Most vapors are heavier than air. They will spread along the ground and collect in low or confined areas (sewers, basements, tanks)
Container explosion may occur under fire conditions or when heated
Fire may produce irritating, corrosive and/or toxic gases

Special Protective Actions for Firefighters

Specific Methods:

Water mist may be used to cool closed containers. For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out.

Special Protective Equipment for Firefighters:

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions:

Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use spark-proof tools and explosion-proof equipment. In case of large spill, water spray or vapor suppressing foam may be used to reduce vapors, but may not prevent ignition in closed spaces.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment

Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up

Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. Clean contaminated surface thoroughly.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from incompatible materials.

Safe Handling Advice

Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Keep away from heat and sources of ignition. Store in a segregated and approved area. Store away from incompatible materials.

Incompatible Materials:

Strong oxidizing agents. Strong bases.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION
Control parameters**National occupational exposure limits****U.S Occupational Exposure Limits:****United States**

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Diacetone Alcohol 123-42-2	50 ppm TWA 240 mg/m ³ TWA	50 ppm TWA 240 mg/m ³ TWA	50 ppm TWA	None

Canada**Canada Occupational Exposure Limits:**

Components	Alberta	British Columbia	Ontario	Quebec
Diacetone Alcohol 123-42-2	50 ppm TWA 238 mg/m ³ TWA	50 ppm TWA	50 ppm TWA 240 mg/kg TWA 75 ppm STEL 360 mg/m ³ STEL	50 ppm TWAEV 238 mg/m ³ TWAEV

Australia and Mexico**Occupational Exposure Limits for Australia and Mexico:**

Components	Australia	Mexico
Diacetone Alcohol 123-42-2	50 ppm TWA 238 mg/m ³ TWA	50 ppm TWA 240 mg/m ³ TWA 75 ppm STEL 360 mg/m ³ STEL

Appropriate engineering controls**Engineering measures to reduce exposure:**

Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment**Personal Protective Equipment**

- Eye protection:** Goggles
- Skin and body protection:** Chemical resistant apron. Long sleeved clothing. Gloves.
- Respiratory protection:** Vapor respirator. Be sure to use an approved/certified respirator or equivalent.
- Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid	Appearance: No information available	Color: Clear. Colorless.
Odor: Faint. Pleasant. Minty.	Taste: No information available	Formula: C6-H12-O2
Molecular/Formula weight: 116.16	Flammability: Flammable	Flashpoint (°C/°F): 56 °C/132.8 °F 61 °C/141.8 °F
Flash Point Tested according to: Closed cup Open cup	Autoignition Temperature (°C/°F): 643 °C/1189.4 °F	Lower Explosion Limit (%): 1.8%
Upper Explosion Limit (%): 6.9%	pH: No information available	Melting point/range(°C/°F): -44 °C/-47.2 °F
Decomposition temperature(°C/°F): No information available	Boiling point/range(°C/°F): 167.9 °C/334.2 °F	Bulk density: No information available
Density (g/cm3): No information available	Specific gravity: 0.9306-0.941	Vapor pressure @ 20°C (kPa): 0.129
Evaporation rate: No information available	Vapor density: 4.0	VOC content (g/L): No information available
Odor threshold (ppm): 0.27-1.1	Partition coefficient (n-octanol/water): -0.098	Viscosity: No information available
Miscibility: Miscible with water Miscible with Ether Miscible with alcohol	Solubility: No information available	

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Reactive with strong oxidizing agents
Reacts with strong bases

Chemical stability

Stability: Stable under recommended storage conditions

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Incompatible materials.

Incompatible Materials: Strong oxidizing agents. Strong bases.

Hazardous decomposition products: Carbon monoxide. Carbon dioxide.

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

SECTION 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Ingestion. Skin. Eyes. Inhalation.

Acute Toxicity

The following values are calculated based on chapter 3.1 of the GHS document .
ATEmix (inhalation-dust/mist) 4000mg/l

Component Information

Diacetone Alcohol - 123-42-2

LD50/oral/rat = 4 g/kg Oral LD50 Rat
LD50/oral/mouse = 3950 mg/kg
LD50/dermal/rabbit = 13500 mg/kg
LD50/dermal/rat = No information available
LC50/inhalation/rat = >10 mg/l 4 hr
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = 4000mg/kg

LD50/oral/mouse =
Value - Acute Tox Oral = 3950mg/kg

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = 13500mg/kg

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = >10mg/l (4-hr)
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Causes skin irritation. Can cause redness and pain.

Eye Contact: Causes eye irritation. Moderately irritating to the eyes.

Inhalation Irritating to respiratory system. May cause conjunctival irritation. May affect respiration (respiratory depression). May cause central nervous system depression. Inhalation of vapors may cause drowsiness and dizziness. May affect behavior/central nervous system (narcosis). May affect behavior/central nervous system (excitement). May cause headache, nausea, vomiting. Symptoms may include coughing and sneezing.

Ingestion May be harmful if swallowed. May affect respiration (respiratory depression). May affect behavior/central nervous system (somnolence). May affect behavior/central nervous system (tremors). May affect behavior/central nervous system (convulsions, seizures). May affect behavior/central nervous system (general anesthetic).

Aspiration hazard No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Prolonged or repeated skin contact may cause dermatitis and defatting, dryness, and cracking of the skin
Chronic exposure may affect the liver and kidneys

Sensitization: No information available

Mutagenic Effects: No information available

Carcinogenic effects: Not classifiable as a human carcinogen.

Components	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Diacetone Alcohol	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Reproductive toxicity No data is available

Reproductive Effects: No information available
Developmental Effects: No information available
Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure Respiratory system. central nervous system.
STOT - repeated exposure No information available
Target Organs: Kidneys. Liver. Skin. Nervous system.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Aquatic environment.

Diacetone Alcohol - 123-42-2

Freshwater Fish Species Data: 420 mg/L LC50 *Lepomis macrochirus* 96 h 1
420 mg/L LC50 *Lepomis macrochirus* 96 h static 1

Water Flea Data: 8750 mg/L EC50 *Daphnia magna* 24 h

Persistence and degradability: No information available

Bioaccumulative potential: No information available

Mobility: No information available

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Diacetone Alcohol	None	None	None	None

SECTION 14: TRANSPORT INFORMATION

DOT

UN-No: UN1148
Proper Shipping Name: Diacetone alcohol
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: III
ERG No: 129
Marine Pollutant: No data available
DOT RQ (lbs): No information available
Special Provisions: No Information available
Symbol(s): No information available

TDG (Canada)

UN-No: UN1148
Proper Shipping Name: Diacetone alcohol
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: III
Marine Pollutant: No Information available

ADR

UN-No: UN1148
Proper Shipping Name: Diacetone alcohol
Hazard Class: 3
Packing Group: III
Subsidiary Risk: No information available

IMO / IMDG

UN-No: UN1148
Proper Shipping Name: Diacetone alcohol
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: III
Marine Pollutant: No information available
EMS: F-E

RID

UN-No: UN1148
Proper Shipping Name: Diacetone alcohol
Hazard Class: 3

Subsidiary Risk: 3
 Packing Group: III

ICAO

UN-No: UN1148
 Proper Shipping Name: Diacetone alcohol
 Hazard Class: 3
 Subsidiary Risk: No information available
 Packing Group: III

IATA

UN-No: UN1148
 Proper Shipping Name: Diacetone alcohol
 Hazard Class: 3
 Subsidiary Risk: No information available
 Packing Group: III
 ERG Code: 3L
 Special Provisions: No information available

SECTION 15: REGULATORY INFORMATION

International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Diacetone Alcohol</i>	Present	Present KE-20675	Present	Present (2)-646 (2)-587	Present	Present	Present 204-626-7

U.S. Regulations

Diacetone Alcohol

- Massachusetts RTK: Present
- New Jersey RTK Hazardous Substance List: 0606
- Pennsylvania RTK: Present
- Minnesota - Hazardous Substance List: Present
- California Directors List of Hazardous Substances: Present

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

WARNING: This product contains a chemical known to the State of California to cause cancer. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
<i>Diacetone Alcohol</i>	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting <i>de minimis</i>
<i>Diacetone Alcohol</i>	None	None	None	None	None

U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Diacetone Alcohol	Not Applicable	08/04/199506/30/1998

Canada

WHMIS hazard class:

B3 Combustible liquid
D2B Toxic materials

Diacetone Alcohol

B3 D2B

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -
Diacetone Alcohol	1 %

Inventory

Components	Canada (DSL)	Canada (NDSL)
Diacetone Alcohol	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances
Diacetone Alcohol	Not listed

Components	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Diacetone Alcohol	Not listed

EU Classification

R-phrase(s)

R36 - Irritating to eyes.

S -phrase(s)

S 9 - Keep container in a well-ventilated place.

S16 - Keep away from sources of ignition - No smoking.

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S24/25 - Avoid contact with skin and eyes.

Components	Classification	Concentration Limits:	Safety Phrases
Diacetone Alcohol	Xi; R36	10%<=C: Xi; R36	S2 S24/25

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

Xi - Irritant.

Xi



SECTION 16: OTHER INFORMATION

Date of issue: 04/02/2024

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.