

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name: Acetone
CAS number: 67-64-1
Synonyms: Dimethyl ketone; 2-Propanone; Methyl ketone

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company: Lab Alley, LLC
12501 Pauls Valley Road, Suite A
Austin, Texas 78737
U.S.A.

Telephone: 512-668-9918
Fax: 512-886-4008

1.4 Emergency telephone

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Eye irritation (Category 2)
Flammable Liquids (Category 2)
Specific target organ toxicity - single exposure (Category 3)

2.2. GHS Label elements, including precautionary statements

Pictogram



Signal Word:

Danger

Hazard statement(s):

Highly flammable liquid and vapor.
Causes serious eye irritation.
May cause drowsiness or dizziness.

Precautionary statement(s):

Prevention - Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical/ ventilating/ lighting/ equipment. Use non-sparking tools.
Response - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical identity:	Acetone
Common name / Synonym:	Dimethyl ketone; 2-Propanone; Methyl ketone
CAS number:	67-64-1
EINECS number:	200-662-2
ICSC number:	0087
RTECS #:	AL3150000
UN #:	1090
EC #:	606-001-00-8

% Weight	Material	CAS
100	Acetone	67-64-1

SECTION 4: First aid measures

4.1 Description of 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.

If inhaled:

Remove person to fresh air. Seek medical attention. Give oxygen or artificial respiration as needed.

In case of skin contact:	Wash skin with soap and copious amounts of water. Seek medical attention.
In case of eye contact:	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.
If swallowed:	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.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable (and unsuitable) extinguishing media

SMALL FIRE: Use dry chemicals, CO₂, water spray or alcohol-resistant foam. LARGE FIRE: Use water spray, water fog or alcohol-resistant foam. Cool all affected containers with flooding quantities of water.

5.2 Specific hazards arising from the substance or mixture

Carbon oxides expected to be the primary hazardous combustion product.

5.3 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.

5.4 Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 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.

6.2 Environmental precautions

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

6.3 Methods and materials for containment and cleaning up

Highly flammable liquid. Eliminate all sources of ignition. All equipment used when handling this product must be grounded. A vapor suppressing foam may be used to reduce vapors. Do not touch or walk through spilled material. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations. Use clean non-sparking tools to collect absorbed material.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 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.

Hygiene measures

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

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 leakage. Consult local fire codes for additional storage information.

8. Exposure controls/personal protection

8.1 Occupational exposure limits

Component	Source	Type	Value	Note
Acetone	US (ACGIH)	STEL	750 ppm	
Acetone	US (ACGIH)	TWA	500 ppm	

8.2 Exposure controls

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.

Personal protective equipment

Eye/face 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 protection

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Body Protection

Flame retardant antistatic protective clothing.

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).

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Clear liquid; invisible vapor
Odor	Sweet. Alcohol-like
Odor Thresh	Not available
pH	Not available
Melting Point/Range	-94°C (-137 °F)
Boiling Point/Range	56 °C (133 °F)
Evaporation Rate	Specific data not available - expected to be rapid.
Flammability (gas, solid)	Flammable
Flammability or explosive limit	
	Upper : 2.5% (V)
	Lower : 12.8% (V)
Vapor Pressure	245.3 hPa (184.0 mmHg) at 20.0 °C (68.0 °F)
Vapor Density	No data available.
Density	0.791 g/cm ³ at 25 °C (77 °F)
Solubility	Completely soluble

Partition coefficient; n-octanol/water	No data available.
Autoignition Temp	465 °C (869°F)
Decomposition Temp	Not pertinent.
Viscosity	No data available.
Molecular Formula	C3H6O
Molecular Weight	58.08 g/mol
VOC Content(%)	No data available.
Oxidizing properties	No data available.

9.2 Other safety information

Conductivity - 0,01 µS/cm at 20 °C

Surface tension - 23,2 mN/m at 20,0 °C

SECTION 10: Stability and reactivity

10.1 Reactivity

Vapors may form explosive mixture with air.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

Vapors may form explosive mixture with air.

10.4 Conditions to avoid

Heat, flames, and sparks. Extreme temperatures and direct sunlight.

10.5 Incompatible materials

Alkali metals, Ammonia, Oxidizing agents, Peroxides, Strong Inorganic Acids

10.6 Hazardous decomposition products

Carbon oxides are expected to be, under fire conditions, the primary hazardous decomposition products.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

No data available to show respiratory or skin sensitisation, germ cell mutagenicity, teratogenicity, reproductive toxicity, specific target organ toxicity for repeated exposure or aspiration hazard.

Acute toxicity

LC50 (Inhalation)	Rat	50,100 mg/m ³	8 hours
LD50 (Oral)	Rat	5,800 mg/kg	
LD50 (Skin)	Guinea Pig	7,426 mg/kg	

Skin corrosion/irritation

Slightly irritating to the skin. Repeated contact with neat product may dry the skin causing cracking and/or fissuring.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory and/or skin sensitization

Not a skin sensitizer. Chronic exposure may cause dermatitis.

Germ cell mutagenicity

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

Carcinogenicity

Not classifiable as to carcinogenicity to humans.

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

NTP: No ingredient 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 in OSHA's list of regulated carcinogens.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Chronic effects

Prolonged inhalation may be harmful.

11.2 Additional Information

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12. Ecological information

12.1 Toxicity

Toxicity to fish	flow-through test LC50 - Pimephales promelas (fathead minnow) - 6.210 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	static test LC50 - Daphnia pulex (Water flea) - 8.800 mg/l - 48 h Remarks: (ECHA)
Toxicity to algae	static test NOEC - M.aeruginosa - 530 mg/l - 8 d (DIN 38412) Remarks: (maximum permissible toxic concentration) (IUCLID)
Toxicity to bacteria	static test EC50 - activated sludge - 61,15 mg/l - 30 min (OECD Test Guideline 209)
Toxicity to daphnia and other aquatic invertebrates	flow-through test NOEC - Daphnia magna (Water flea) - 2.212 mg/l - 28 d

12.2 Persistence and degradability

Biodegradability	aerobic - Exposure time 28 d Result: 91 % - Readily biodegradable. (OECD Test Guideline 301B)
Biochemical Oxygen Demand (BOD)	1.850 mg/g Remarks: (IUCLID)
Chemical Oxygen Demand (COD)	2.070 mg/g Remarks: (IUCLID)
Theoretical oxygen demand	2.200 mg/g Remarks: (Lit.)

12.3 Bio accumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

13. Disposal considerations

13.1 Waste Disposal Methods

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

SECTION 14: Transport information

DOT (US)

UN number:	UN1090
Proper shipping name:	Acetone
Hazard Class:	3
Subsidiary risk:	
Packaging Group:	II
Environmental hazards:	

IMDG

UN number: UN1090
 Proper shipping name: Acetone
 Hazard Class 3
 Subsidiary risk
 Packaging Group II
 Environmental hazards

IATA

UN number: UN1090
 Proper shipping name: Acetone
 Hazard Class 3
 Subsidiary risk
 Packaging Group II
 Environmental hazards

SECTION 15: Regulatory information

OSHA Hazards

Flammable liquid, Target Organ Effect, Irritant

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

Country	Notification
Australia	AICS
Canada	DSL
China	IECS
European Union	EINECS
Japan	ENCS/ISHL
Korea	ECL
New Zealand	NZIoC
Philippines	PICCS
United States of America	TSCA

SARA 302 Components

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

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard
Chronic Health Hazard
Fire Hazard

CERCLA

Acetone CAS-No. 67-64-1, RQ: 5,000 lbs

Massachusetts Right To Know Components

Acetone CAS-No. 67-64-1 Revision Date 2007-03-01

Pennsylvania Right To Know Components

Acetone CAS-No. 67-64-1 Revision Date 2007-03-01

New Jersey Right To Know Components

Acetone CAS-No. 67-64-1 Revision Date 2007-03-01

California Prop 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: Other information

Issue Date	06/18/2018
Revision Date	06/15/2023

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.