

DRAFT DOCUMENT: Review by a qualified chemical safety professional is required before reliance or redistribution.

Acetone

Requested identifier: 67-64-1

CAS: 67-64-1

Formula: C₃H₆O

Molecular weight: 58.08

Branding: Your Company Name

PDF URL: <https://custom-sds.com/sample>

GHS Pictograms



GHS02



GHS07

Section 1 - Identification

Prepared for: Your Company Name

1.1 Product identifier

Product identifier: Acetone

Chemical name (IUPAC): propan-2-one

CAS number: 67-64-1

PubChem CID reference: 180

Synonyms: acetone; 2-propanone; propanone; propan-2-one; Dimethyl ketone; Pyroacetic ether; Methyl ketone; Dimethylformaldehyde; beta-Ketopropane; Dimethylketal

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

Relevant identified uses: Laboratory reagent, industrial processing aid, formulation component, and internal product-stewardship review subject to supplier confirmation.

Uses advised against: Consumer, medical, food, or any other use not covered by the supplier's label, technical instructions, or exposure scenario.

1.3 Details of the supplier of the safety data sheet

Supplier details to complete before external issue: name, address, telephone, website.

1.4 Emergency telephone number

Emergency telephone number: 1-800-424-9300 (CHEMTREC)

DRAFT DOCUMENT: Review by a qualified chemical safety professional is required before reliance or redistribution.

SDS revision date: 2026-10-14

SDS version: 1.0 draft

Section 2 - Hazards Identification

2.1 Classification of the substance or mixture

Classification basis: OSHA 29 CFR 1910.1200 Appendix A, aligned to the GHS Rev. 7 hazard classes.

Classification row: Flammable Liquid, Category 2 (Flam. Liq. 2) [H225]

Classification row: Eye Irritation, Category 2 (Eye Irrit. 2) [H319]

Classification row: Specific Target Organ Toxicity, Single Exposure, Category 3 (STOT SE 3) [H336]

2.2 Label elements

Signal word: Danger

GHS pictograms: GHS02 (Flammable), GHS07 (Exclamation)

Hazard statement: H225: Highly flammable liquid and vapor.

Hazard statement: H319: Causes serious eye irritation.

Hazard statement: H336: May cause drowsiness or dizziness.

Precautionary statement: P280: Wear protective gloves, protective clothing, eye protection and face protection.

Precautionary statement: P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Precautionary statement: P271: Use only outdoors or in a well-ventilated area.

Precautionary statement: P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

Precautionary statement: P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Precautionary statement: P370+P378: In case of fire: Use appropriate extinguishing media.

Section 3 - Composition / Information on Ingredients

3.1 Substances

Substance name: Acetone

CAS number: 67-64-1

Chemical name (IUPAC): propan-2-one

DRAFT DOCUMENT: Review by a qualified chemical safety professional is required before reliance or redistribution.

Molecular formula: C3H6O

Molecular weight: 58.08

Composition: Single constituent substance represented by the resolved PubChem compound record.

Impurities and stabilizing additives: No classification-relevant impurities or stabilizers are identified in the resolved PubChem single-substance record; confirm the sold grade before external issue.

3.2 Mixtures

Not applicable; the product is supplied as a single substance, not a formulated mixture.

Section 4 - First-Aid Measures

4.1 Description of first aid measures

Inhalation: Move the exposed person to fresh air and keep at rest in a position comfortable for breathing.

Skin contact: Wash exposed skin thoroughly with soap and water and remove contaminated clothing.

Eye contact: Rinse cautiously with water for several minutes and remove contact lenses if present and easy to do.

Ingestion: Rinse mouth and obtain medical advice if symptoms occur; do not induce vomiting unless directed by medical personnel.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation Exposure: Sore throat. Cough. Headache. Dizziness. Confusion. Drowsiness. Unconsciousness.

Skin Exposure: Dry skin.

Eye Exposure: Redness. Pain. Blurred vision.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively. Immediate medical evaluation is recommended for significant inhalation, ingestion, or splash exposure.

Section 5 - Fire-Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media: alcohol-resistant foam, dry chemical, or carbon dioxide; water spray may be used to cool exposed containers.

Unsuitable extinguishing media: Do not use a direct water jet on burning liquid surfaces if it can spread the fire.

5.2 Special hazards arising from the substance or mixture

DRAFT DOCUMENT: Review by a qualified chemical safety professional is required before reliance or redistribution.

Specific hazards: Vapors may form ignitable mixtures with air and may travel to a remote ignition source.

5.3 Advice for firefighters

Protective equipment for firefighters: Wear self-contained breathing apparatus and full protective gear in enclosed or poorly ventilated areas.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Isolate the spill area, provide ventilation, and avoid unnecessary exposure during cleanup. Eliminate all ignition sources and use non-sparking tools during spill control.

6.2 Environmental precautions

Environmental precautions: Prevent the material from reaching drains, soil, or surface water until disposal arrangements are in place.

6.3 Methods and material for containment and cleaning up

Containment and cleanup: Absorb free liquid with inert material and transfer residues to a compatible waste container.

6.4 Reference to other sections

See Section 8 for exposure controls and personal protection. See Section 13 for disposal considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling: Use local exhaust ventilation where mist, dust, or vapor can be generated and avoid direct contact with eyes, skin, and clothing.

Handling: Keep away from heat, sparks, open flame, and hot surfaces; ground and bond transfer equipment where applicable.

7.2 Conditions for safe storage, including any incompatibilities

Storage: Keep containers tightly closed in a cool, dry, and well-ventilated area away from incompatible materials.

7.3 Specific end use(s)

No specific end-use guidance is encoded automatically; refer to the identified uses in Section 1.2 and the customer-specific process review.

DRAFT DOCUMENT: Review by a qualified chemical safety professional is required before reliance or redistribution.

Section 8 - Exposure Controls / Personal Protection

8.1 Control parameters

OSHA PEL (TWA): 1000 ppm / 2400 mg/m³.

ACGIH TLV (TWA): 500 ppm.

ACGIH TLV (STEL): 750 ppm.

NIOSH REL (TWA): 250 ppm / 590 mg/m³.

EU OEL (8-hour TWA): 500 ppm / 1210 mg/m³.

EU OEL (15-minute STEL): 1000 ppm / 2420 mg/m³.

8.2 Exposure controls

Engineering controls: Use local exhaust ventilation and explosion-protected equipment to keep airborne acetone below applicable limits and to prevent vapor accumulation.

Respiratory protection: If ventilation is inadequate, use a NIOSH-approved half-mask or full-face respirator with organic vapor cartridges; use supplied air or SCBA for unknown or IDLH concentrations.

Hand protection: Wear butyl rubber gloves, minimum 0.3 mm thickness; replace promptly if breakthrough or splash contamination is observed.

Eye/face protection: Use chemical splash goggles; add a face shield where splash, pouring, or drum transfer can occur.

Skin/body protection: Wear impervious lab coat or flame-retardant antistatic protective clothing and closed chemical-resistant footwear.

Hygiene measures: Wash thoroughly after handling, remove contaminated clothing promptly, and do not eat, drink, or smoke in the work area.

Section 9 - Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical form: Liquid

Appearance: Colorless liquid

Odor: Fruity odor

Boiling point: 57°C (133°F) at 1013 hPa

Melting point: -94.9°C (-140°F)

DRAFT DOCUMENT: Review by a qualified chemical safety professional is required before reliance or redistribution.

Flash point: -20°C (-4°F) closed cup

Density: 0.7845 g/cm³ at 20°C

Vapor pressure: 240 hPa at 20°C

Water solubility: Miscible

Log Pow (log K_{ow}): -0.24 (measured)

Vapor density: 2 (air = 1)

Lower explosive limit: 2.6%

Upper explosive limit: 12.8%

Auto-ignition temperature: 465°C (869°F)

Viscosity: 0.32 cP at 20°C

Not stated in the sourced records: pH.

9.2 Other information

Other information: Additional classification-supporting physical hazard data should be confirmed from the customer-specific product specification where required.

Section 10 - Stability and Reactivity

10.1 Reactivity

Reactivity: Flammable liquid and vapor.

10.2 Chemical stability

Chemical stability: Stable under normal storage conditions.

10.3 Possibility of hazardous reactions

Possibility of hazardous reactions: Vapors may form explosive mixtures with air.

10.4 Conditions to avoid

Conditions to avoid: Heat, sparks, open flames, hot surfaces, static discharge, and incompatible materials.

10.5 Incompatible materials

Incompatible materials: Strong oxidizing agents, strong bases, strong acids.

10.6 Hazardous decomposition products

Hazardous decomposition products: Carbon monoxide, carbon dioxide.

10.7 Hazardous polymerization

DRAFT DOCUMENT: Review by a qualified chemical safety professional is required before reliance or redistribution.

Hazardous polymerization: Will not occur.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

11.1.1 Acute toxicity

LD50 (oral, rat): 5800 mg/kg bw (source: Hazardous Substances Data Bank (HSDB) - ACETONE)

LD50 (dermal, rabbit/rat): Based on available data, the classification criteria are not met.

LC50 (inhalation, rat): 50,100 mg/m³/8 h (source: Haz-Map, Information on Hazardous Chemicals and Occupational Diseases - Acetone)

Acute effects summary: The substance is irritating to the eyes and respiratory tract.

11.1.2 Skin corrosion/irritation: Mild skin irritant / defatting effect is described in PubChem narratives. A dry skin can be the result of dermal contact.

11.1.3 Serious eye damage/irritation: Classified for serious eye irritation (H319). Causes serious eye irritation.

11.1.4 Respiratory/skin sensitization: Based on available data, the classification criteria are not met.

11.1.5 Germ cell mutagenicity: Acetone is not considered to be genotoxic or mutagenic.

11.1.6 Carcinogenicity: Not classified; source records describe the substance as not classifiable as a human carcinogen.

11.1.7 Reproductive toxicity: Females were reported to suffer menstrual irregularities. Reports of other reproductive effects of acetone include observations of testicular effects and changes of sperm quality in rats. Based on available data, the classification criteria are not met.

11.1.8 STOT - single exposure: Narcotic effects classification is present (H336). Eyes, skin, respiratory system, central nervous system

11.1.9 STOT - repeated exposure: Systemically, acetone is moderately toxic to the liver and produces hematological effects. The renal toxicity may be due to the metabolite, formate, which is known to be nephrotoxic and is excreted by the kidneys. Based on available data, the classification criteria are not met.

11.1.10 Aspiration hazard: Based on available data, the classification criteria are not met.

11.1.12 Symptoms related to the physical, chemical and toxicological characteristics: The substance is irritating to the eyes and respiratory tract. A dry skin can be the result of dermal contact. Inhalation or contact with material may irritate or burn skin and eyes.

11.2.1 Endocrine disrupting properties: This draft does not automatically determine endocrine-disrupting properties for human health.

Section 12 - Ecological Information

DRAFT DOCUMENT: Review by a qualified chemical safety professional is required before reliance or redistribution.

12.1 Toxicity

LC50 (fish, /Oncorhynchus mykiss/ (Rainbow trout) weight 1.0 g, 96 h): 5540 mg/L (Source: PubChem / HSDB).

EC50 (aquatic invertebrate, Artemia salina (Brine shrimp) 2-3 instar nauplii, 24 h): 14852000 µg/L (Source: PubChem / HSDB).

12.2 Persistence and degradability

Persistence and degradability: Readily biodegradable; reported BOD5/COD ratio exceeds 0.6 and ready-biodegradability screening data classify acetone as readily biodegradable.

12.3 Bioaccumulative potential

Log Kow: -0.24.

Bioaccumulative potential: Low; acetone is not expected to bioaccumulate (estimated BCF 3).

12.4 Mobility in soil

Mobility in soil: Very high mobility in soil; estimated Koc 2.4.

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment: Acetone is not expected to meet PBT or vPvB criteria because it is readily biodegradable and has a low partition coefficient.

12.6 Endocrine disrupting properties

Endocrine disrupting properties: Not determined. No environmental endocrine-disruptor assessment is available for this product.

12.7 Other adverse effects

Other adverse effects: Low environmental hazard. Not classified as hazardous to the aquatic environment under GHS and not identified as a marine pollutant.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Waste treatment methods: Collect acetone residues, rinsates, and contaminated absorbents in closed grounded compatible containers as flammable liquid waste and send them through a licensed hazardous-waste contractor for incineration in a permitted facility or approved solvent recovery where allowed. Do not discharge to sewers, drains, soil, or watercourses.

Hazardous waste classification: Evaluate the waste stream under applicable EPA/RCRA rules; acetone waste commonly carries the ignitable characteristic (D001), and spent-solvent listings may apply depending on how the material was used. Assign the applicable EU List of Waste code based on the process and contaminants.

Local regulations: Dispose in accordance with federal, state, local, and international hazardous-waste regulations.

DRAFT DOCUMENT: Review by a qualified chemical safety professional is required before reliance or redistribution.

Packaging: Empty containers can retain flammable vapor and liquid residue; do not cut, weld, or reuse them until they have been properly cleaned or managed by an approved hazardous-waste handler.

Section 14 - Transport Information

14.1 UN number

UN number: UN 1090

14.2 UN proper shipping name

UN proper shipping name: ACETONE

14.3 Transport hazard class(es)

Transport hazard class(es): Class 3 (Flammable liquids)

Transport label(s): 3

14.4 Packing group

Packing Group: II

14.5 Environmental hazards

Marine pollutant: not listed in Appendix B to 49 CFR 172.101, edition 2026-01-01 under the names checked. A mixture can still be a marine pollutant on the strength of its components.

Reportable quantity: 5000 lb (2270 kg) as a CERCLA hazardous substance in Table 1 to Appendix A to 49 CFR 172.101, edition 2026-01-01. A package containing that quantity or more must carry "RQ" in the shipping description.

14.6 Special precautions for user

Special precautions for user: Keep away from heat, sparks, open flames, and hot surfaces. Use bonded and grounded transfer equipment during shipment.

Mode confirmation: IMDG: UN 1090, ACETONE, Class 3, Packing Group II.

Mode confirmation: IATA: UN 1090, ACETONE, Class 3, Packing Group II.

14.7 Transport in bulk according to IMO instruments

Transport in bulk according to IMO instruments: bulk transport is addressed by § 173.242 for domestic shipments. Confirm the IBC Code or IMSBC Code entry before a bulk sea shipment.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

DRAFT DOCUMENT: Review by a qualified chemical safety professional is required before reliance or redistribution.

Regulatory scope: Baseline US TSCA, EU REACH/CLP, and Canada DSL/WHMIS references for the resolved single-substance record.

US TSCA: Listed on the TSCA Chemical Substance Inventory (Active) (CAS 67-64-1).

US EPCRA SARA Section 313: Acetone (CAS 67-64-1) is not listed for Section 313 toxic chemical reporting.

California Proposition 65: Acetone is not listed on the California Proposition 65 list.

EU REACH SVHC: Acetone is not identified on the current ECHA Candidate List of Substances of Very High Concern (SVHCs).

EU CLP: Classified for acetone under Regulation (EC) No 1272/2008 (CLP); align with Section 2 classifications Flam. Liq. 2, Eye Irrit. 2, and STOT SE 3.

Canada DSL: Listed on the Domestic Substances List (DSL).

US EPCRA SARA Sections 311/312: Hazard categories - Fire Hazard, Acute Health Hazard.

US OSHA: Classification based on GHS Revision 7 / OSHA HazCom 2024 (29 CFR 1910.1200).

Canada WHMIS: This SDS is intended to support WHMIS 2015 requirements under the Hazardous Products Act and Hazardous Products Regulations.

15.2 Chemical safety assessment

Chemical safety assessment: A substance-specific chemical safety assessment is not determined automatically by this generator.

Section 16 - Other Information

16.1 Revision information

SDS revision date (current document): 2026-10-14

SDS version number: 1.0 draft

Classification based on GHS Revision 7 / OSHA HazCom 2024 (29 CFR 1910.1200).

16.2 Preparer / issuer information

Prepared by: the issuing supplier, on adoption; this draft was prepared on demand and must be adopted and re-issued under the issuing supplier's own identity before external use

Issuer details to complete before external issue: address, telephone, website.

Preparer email: support@custom-sds.com

16.3 Legend of abbreviations and acronyms used

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act.

CLP: Classification, Labelling and Packaging Regulation.

DRAFT DOCUMENT: Review by a qualified chemical safety professional is required before reliance or redistribution.

GHS: Globally Harmonized System of Classification and Labelling of Chemicals.

IATA: International Air Transport Association.

IMDG: International Maritime Dangerous Goods.

LC50 / LD50: Median lethal concentration / median lethal dose.

Log Kow: Octanol/water partition coefficient.

OEL: Occupational exposure limit.

PBT / vPvB: Persistent, bioaccumulative and toxic / very persistent and very bioaccumulative.

RCRA: Resource Conservation and Recovery Act.

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals.

SARA: Superfund Amendments and Reauthorization Act / EPCRA reporting framework.

SDS: Safety Data Sheet.

STEL / TWA: Short-term exposure limit / time-weighted average.

TSCA: Toxic Substances Control Act.

UN: United Nations transport identifier.

16.4 Key references to literature and data sources

Primary source: PubChem compound record CID 180.

Disclaimer: Information is provided in good faith and is believed to be accurate as of the revision date.

Evidence appendix: named sources for this draft

The values in this draft were assembled from the public records named below. A language model was used to format and editorially review the document, not to originate safety values.

Document provenance

Requested identifier	67-64-1
Primary record	PubChem compound record CID 180
Record address	https://pubchem.ncbi.nlm.nih.gov/compound/180
CAS number	67-64-1
Data sources used	PubChem
Source data retrieved	2026-10-14
Verification status	Inference candidate. Each value is traceable to a named source above but has not been accepted by a named reviewer.

DRAFT DOCUMENT: Review by a qualified chemical safety professional is required before reliance or redistribution.

Named source records

Source 1	PubChem compound record CID 180
Source 2	PubChem Safety and Hazards > GHS Classification
Source 3	PubChem Safety and Hazards
Source 4	PubChem Names and Identifiers > Other Identifiers > European Community (EC) Number
Source 5	PubChem Transport Information
Source 6	PubChem Regulatory Information
Source 7	PubChem Toxicity
Source 8	ECHA C&L inventory record, CAS 67-64-1
Source 9	Harmonized CLP classification set, revision 2026-05-25
Source 10	ECHA harmonized CLP row
Source 11	Curated fallback aligned to PubChem GHS / ECHA CLP classification for acetone

Check each value against its cited record before official use. This draft is not a certified, approved or audited document, and no part of it should be treated as one.