

Revision date: 16 June 2015

Version: 05

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

1.1. Product identifier

Trade name/designation:	Acetone
Product No.:	BDH2002, BDH2025
Other means of identification:	Propan-2-one, Methyl ketone, Dimethyl ketone

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

Relevant identified uses: For laboratory and manufacturing use only

1.3. Details of the supplier of the safety data sheet

Company: VWR International, LLC
Radnor Corporate Center
100 Matsonford Road
Radnor, PA 19087-8660

Telephone 610.386.1700

1.4. Emergency Telephone number

CHEMTREC 800.424.9300
CANUTEC 613.996.6666

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

For the full text of the H-Statement(s) and P-phrase(s) mentioned in this Section, see Section 16.

Hazard statements	Hazard classes and hazard categories
H225	Highly flammable liquid (Category 2)
H319	Serious eye damage/eye irritation (Category 2A)
H336	Specific target organ toxicity, single exposure; Narcotic effects (Category 3)

2.2. GHS Label elements, including precautionary statements

Pictograms:



Signal word: Danger

Hazard statements	
H225	Highly flammable liquid and vapor (Category 2)
H319	Causes serious eye irritation (Category 2A)
H336	May cause drowsiness or dizziness (Category 3)

Precautionary statements	
P210	Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P233	Keep container tightly closed.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P501	Dispose of contents/container to proper disposal facility

2.3. WHMIS Classification:

B2	Flammable Liquid
D2B	Toxic Material

2.4. Hazards not otherwise classified (HNOC) or not covered by GHS or WHMIS: None

SECTION 3: Composition / information on ingredients

3.1. Hazard components

Chemical name	Formula	Molecular weight	CAS#	Weight%
Acetone	C ₃ H ₆ O	58.08 g/mol	67-64-1	100

SECTION 4: First aid measures

4.1 General information

In case of inhalation: In case of accident by inhalation: remove personnel to fresh air and keep at rest. Seek medical advice immediately.

In case of skin contact: After contact with skin, wash immediately with plenty of water.

In case of eye contact: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice, if necessary.

In case of ingestion: If swallowed, do not induce vomiting. Rinse mouth with water; seek medical advice immediately.

4.2. Most important symptoms and effects, both acute and delayed: Burning sensation in eyes, temporary reddening of skin with potential dryness and cracking. Headache, dazed feeling, vomiting, nausea with skin absorption/inhalation.

4.3. Indication of any immediate medical attention and special treatment needed: No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture: No data available

5.3. Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting, if necessary.

5.4. Hazardous combustion products: Carbon oxides

5.5. Advice for firefighters: Wear self contained breathing apparatus for firefighting, if necessary.

5.6. Additional information: No data available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures: Use personal protective equipment.

6.2. Environmental precautions: Do not allow entry into ground water.

6.3. Methods and material for containment and cleaning up: Contain spillage. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

6.4. Additional information: For disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling: Use proper personal protective equipment, and avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition and take measures to prevent the build up of electrostatic charge.

7.2. Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3. Specific end use(s): No data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

United States			
Chemical Name	Limit value type & Country of Origin	Exposure Limit value	Source
Acetone	TWA-U.S.	500 ppm	ACGIH (TLV)
	STEL-U.S.	750 ppm	ACGIH (TLV)
	TWA-U.S.	1,000 ppm	OSHA Table 2-1

Canada			
Chemical Name	Limit value type & Country of Origin	Exposure Limit value	Source
Acetone	TWA-Canada	250 ppm	Canada. OEL
	STEL-Canada	500 ppm	Canada. OEL
	TWAEV-Canada	500 ppm	Canada. OEL

8.2. Exposure controls

Appropriate engineering controls: Ensure adequate ventilation, especially in confined areas.

Personal protection equipment

Eye/face protection: Tightly fitting safety goggles.

Skin protection: Protective gloves.

Respiratory protection: If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA or CEN approved respiratory protection should be worn.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practices.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

- a) Appearance:
Physical state: Liquid
Color: Colorless
- b) Odor: sweet, pungent
- c) Odor Threshold: 62 ppm
- d) pH: 5-7 @ 100%
- e) Melting point/freezing point: No data available
- f) Initial boiling point: 56°C / 133°F
boiling range: No data available
- g) Flash point: -20°C / -4°F (closed cup)
- h) Evaporation rate: 5.6 – 6.06
- i) Flammability (solid, gas): No data available
- j) **Upper/lower flammability** or explosive limits: 13% (V) / 2.1% (V)
- k) Vapor pressure: 231 mmHg @ 25°C / 77°F
- l) Vapor density: 2.0 @ 20°C / 68°F
- m) Relative density: 0.792 g/cm³ @ 20°C / 68°F
- n) Solubilities: Completely soluble
- o) Partition coefficient (n-Octanol/Water): log Pow 0.2
- p) Auto-ignition temperature: 535°C / 995°F
- q) Decomposition temperature: No data available
- r) Viscosity: 0.32 MPas @ 25°C / 77°F
- s) Explosive properties: No data available
- t) Oxidizing properties: No data available

9.2. Other information: No data available

SECTION 10: Stability and reactivity

10.1. Reactivity: No dangerous reaction known under normal use.

10.2. Chemical stability: Stable under recommended storage conditions.

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

10.4. Conditions to avoid: Heat, flames, and sparks. Extremes of temperature and direct sunlight.

10.5. Incompatible materials: Strong oxidizing agents, strong bases

10.6. Hazardous decomposition products: Thermal decomposition may produce fumes of carbon dioxide and/or carbon monoxide

SECTION 11: Toxicology

11.1. Information on toxicological effects

Acute toxicity

Oral LD₅₀: 5,800 mg/kg (Rat)

Inhalation LC₅₀: 8 h - 50,100 mg/m³ (Rat)

Dermal LD₅₀: 7,426 mg/kg (Rabbit)

Other information on acute toxicity: No data available

Skin corrosion/irritation: May cause irritation with redness and pain. May be absorbed through skin with possible systemic effects.

Serious eye damage/eye irritation: Causes eye irritation

Respiratory or skin sensitization: Inhalation of vapors in high concentration may cause irritation of respiratory system.

Germ cell mutagenicity: No data available

Carcinogenicity: This product is not classified as a carcinogen based on its IARC, ACGIH, NTP or OSHA Classification.

Reproductive toxicity: Does not show teratogenic effects in animal experiments.

Specific target organ toxicity-single exposure: Central nervous system

Specific target organ toxicity-repeated exposure: No data available

Aspiration hazard: No data available

Additional information: Inhalation of vapors may cause drowsiness or dizziness

SECTION 12: Ecological information

12.1. Ecotoxicity:

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Acetone	7200 mg/l: 96 h	6100 mg/l: 48 h Oncorhynchus mykiss	7630 mg/l: 48 h Daphnia magna mg/L EC50

12.2. Persistence and degradability: No data available

12.3. Bioaccumulative potential: Does not bioaccumulate.

12.4. Mobility in soil: No data available

12.5. Results of PBT and vPvB assessment: No data available

12.6. Other adverse effects: No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging: Dispose of as unused product.

SECTION 14: Transport information

Land Transport DOT (U.S.)

UN Number: 1090
 Proper Shipping name: Acetone
 Transport Hazard Class: 3
 Hazard Label(s): Flammable 3
 Packing Group: II
 Environmental hazard(s): Marine Pollutant: No
 Special precautions for user: None Especially Mentioned

Sea Transport IMDG

UN Number: 1090
 Proper Shipping name: Acetone



Transport Hazard Class: 3
Hazard Label(s): Flammable 3
Packing Group: II
Environmental hazard(s): Marine Pollutant: No
Segregation Group: EMS No.: F-E, S-D
Special precautions for user: None Especially Mentioned

Transportation of Dangerous Goods (TDG)

UN Number: 1090
Proper Shipping name: Acetone
Transport Hazard Class: 3
Hazard Label(s): Flammable 3
Packing Group: II
Environmental hazard(s): Marine Pollutant: No
Special precautions for user: None Especially Mentioned

Air Transport IATA

UN Number: 1090
Proper Shipping name: Acetone
Transport Hazard Class: 3
Hazard Label(s): Flammable 3
Packing Group: II
Environmental hazard(s): Marine Pollutant: No
Special precautions for user: None Especially Mentioned

SECTION 15: Regulatory information

WHMIS Classification: Flammable Liquid, Toxic Material

OSHA Hazards: Flammable liquid, Mild skin irritant, Carcinogen

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

SARA 313 (TRI reporting): None identified

SARA 311/312 Hazardous Chemicals: Fire hazard, Chronic health hazard

Massachusetts Right-To-Know Substance List: Listed as Acetone

Pennsylvania Right-To-Know Hazardous substances: Listed as Acetone

New Jersey Worker and Community Right-To-Know Components: Listed as Acetone

California Proposition 65: This product does not contain chemicals known to the State of California to cause birth defects or other reproductive harm.

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

SECTION 16: Other information

Full text of H-Statement(s) and P-phrase(s):

H225	Highly flammable liquid and vapor
H319	Causes serious eye irritation
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P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
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P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
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P280	Wear protective gloves/protective clothing/eye protection/face protection.
P501	Dispose of contents/container to proper disposal facility

Canadian Carcinogenicity hazard class:

PHNOC hazard class: No data available

HHNOC hazard class: No data available

Biohazardous Infectious Materials hazard class: No data available

HMIS Rating:

Health: 2

Flammability: 3

Physical Hazard: 0

Reactivity: 0

NFPA Rating:

Health: 2

Flammability: 3

Reactivity: 0

Special Hazard: N/A

DISCLAIMER

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. VWR International, LLC and its affiliates shall not be held liable for any damage resulting from handling.