Product Name	Acetone

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identification:

Product Description: Acetone

Synonyms: 2-Propanone

CAS-No: 67-64-1

EC-No.: 200-662-2

Molecular Formula: CH_3COCH_3

REACH Registration No: A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration, or the registration is envisaged for a later registration deadline.

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

Recommended Use: Laboratory chemicals, not for food and drug, Used as pharma Excipient

1.3. Details of the supplier of the safety data sheet:

- **Company** **Finar Limited**
  184-186/P, Chacharwadi Vasna,
  Sarkhej-Bavla Highway,
  Ta.: Sanand, Dist.: Ahmedabad-382110, Gujarat, India.
  Web: www.finarchemicals.com
- **E-Mail Address** safety.finar@actylis.com; info.finar@actylis.com

1.4. Emergency Telephone Number:

- For Emergency contact on: +91 - 2717 - 616 717

Product Name	Acetone

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008

Flammable liquid, Category 2, H225

Eye Irritation, Category 2, H319

Specific target organ toxicity- Single Exposure, Category 3, Central Nervous System, H336

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2. Label Elements:

Labeling according Regulation (EC) No 1272/2008

Pictogram

Signal word: Danger

Hazard statement(s)

H225 Highly flammable liquid and vapour.

H319 Causes Serious eye irritation.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

Precautionary statement(s)

Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P240 Ground/bond container and receiving equipment.

Response

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

Reduced labelling (≤125 ml)

Pictogram

Product Name	Acetone

Signal word: **Danger**

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

2.3. Other Hazards:

None Known

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances: Acetone

3.2. Mixtures:

Component	CAS-No	EC-No.	Weight %
Acetone	67-64-1	200-662-2	>95

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures:

- **General advice**

  If symptoms persist, call a physician.
- **If inhaled**

  Fresh air. Immediately call in physician.
- **If Contact with skin**

  Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- **In case of eye contact**

  Rinse immediately with plenty of water, Call in ophthalmologist. Remove contact lenses.
- **If swallowed**

  Caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed:

Risk of corneal clouding.

Drying-out effect resulting in rough and chapped skin.

irritant effects, Drowsiness, Dizziness, narcosis, Nausea, Vomiting, Stomach/intestinal disorders, Headache, somnolence, Salivation, Coma

4.3. Indication of any immediate medical attention and special treatment needed:

No information Available

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media:

Suitable Extinguishing Media- Use alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media- For this substance/mixture no limitations of extinguishing agents are given.

5.2. Special hazards arising from the substance or mixture:

Combustible.

Forms explosive mixtures with air at ambient temperatures.

Vapours are heavier than air and may spread along floors.

Pay attention to flashback.

Development of hazardous combustion gases or vapours possible in the event of fire.

5.3. Advice for firefighters:

Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

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:

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

Product Name	Acetone

6.2. Environmental precautions:

Do not let product enter drains. Risk of explosion.

6.3. Methods and material for containment and cleaning up:

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material. Dispose of properly. Clean up affected area.

6.4. Reference to other sections:

For disposal see Sections 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling

Observe label precautions.

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Hygiene measures

Immediately change contaminated clothing. Preventive skin protection recommended.

Wash hands and face after working with substance.

7.2. Conditions for safe storage, including any incompatibilities:

Storage conditions

Protected from light.

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Recommended storage temperature see product label.

7.3. Specific end use(s):

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Acetone

In OEL

Short Term Exposure Limit (STEL)	:	1000 ppm / 2375 mg/m^3
Time Weighted Average (TWA)	:	750 ppm / 1780 mg/m^3

Product Name	Acetone

8.2. Exposure Controls:

- **Appropriate Engineering Controls:**

  Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

  See section 7.1.

  Personal Protective Equipment:

  Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

- **Eye & Face Protection-**

  safety goggles

- **Hand Protection -**

  Full contact: -

Glove material:	Butyl-Rubber
Glove thickness:	0.7 mm
Break through time:	480 min

  Splash contact: -

Glove material:	Natural Latex
Glove thickness:	0.6 mm
Break through time:	10 min

  The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 898 Butoject® (full contact), KCL 706 Lapren® (splash contact).

  The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves.

- **Other Protective equipment-**

  Flame retardant antistatic protective clothing.

- **Respiratory Protection-**

  Required when vapours/aerosols are generated.

  Recommended Filter type: Filter AX- (EN 371)

  The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly

documented.

- **Environmental Exposure Controls-**

Do not let product enter drains. Risk of explosion.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties:

- **Appearance:** Colorless
- **Physical State:** Liquid
- **Odor:** Like Fruit
- **Odor Threshold:** 0.1 – 662.5 ppm
- **pH:** 5 - 6 at 395 g/l at 20 °C
- **Melting Point:** - 95.4 °C
- **Critical Temperature: -** No data available
- **Vapor Pressure:** 233 hPa at 20 °C
- **Relative Vapor Density:** 2.01
- **Density:** 0.79 g/cm3 at 20 °C
- **Ignition Temperature:** 465 °C
- **Volatility:** No data available
- **Bulk Density:** No data available
- **Viscosity, dynamic:** 0.32 mPa.s at 20 °C
- **Water/Oil Dist. Co eff.: -** No data available
- **Ionicity (in Water): -** No data available
- **Lower Explosion Limit:** 2.6 % (V)
- **Upper Explosion Limit:** 12.8 % (V)
- **Boiling Point/Range:** 56.2 °C at 1.013 hPa
- **Flash Point:** -20 °C

9.2. Other information:

Molecular Formula: - $CH_3CO\ CH_3$

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:

Vapours may form explosive mixture with air.

Product Name	Acetone

10.2. Chemical stability:

Sensitivity to light

Sensitive to air.

10.3. Possibility of hazardous reactions:

Risk of ignition or formation of inflammable gases or vapours with:

chromosulfuric acid, chromyl chloride, ethanolamine, Fluorine, Strong oxidizing agents, strong reducing agents, Nitric acid, chromium(VI) oxide

Risk of explosion with:

nonmetallic oxyhalides, halogen-halogen compounds, Chloroform, nitrating acid, nitrosyl compounds, hydrogen peroxide, halogen oxides, organic nitro compounds, peroxi compounds

Exothermic reaction with:

Bromine, Alkali metals, alkali hydroxides, Halogenated hydrocarbon, Sulphur dichloride, phosphorous oxichloride

10.4. Conditions to avoid: Warming.

10.5. Incompatible materials: Rubber, various plastics

10.6. Hazardous decomposition products: No data available

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Oral toxicity

LD50 Rat: 5,800 mg/kg

(ECHA)

Symptoms: Stomach/intestinal disorders, Risk of aspiration upon vomiting., Pulmonary failure possible after aspiration of vomit.

Acute Inhalation toxicity

LC50 Rat: 76 mg/l; 4 h ; vapour

(Lit.)

Symptoms: mucosal irritations

Acute Dermal toxicity

LD50 Rabbit: 20,000 mg/kg

(IUCLID)

Skin corrosion/irritation

Rabbit

Product Name	Acetone

Result: No irritation

(External MSDS)

Repeated exposure may cause skin dryness or cracking.

Serious eye damage/eye irritation

Rabbit

Result: Eye irritation

(External MSDS)

Causes serious eye irritation.

Risk of corneal clouding.

Respiratory or skin sensitization

Maximisation Test: Guinea pig

Result: negative

(ECHA)

Germ cell mutagenicity

Genotoxicity in vivo

micronucleus test

Mouse

Result: negative

(National Toxicology Program)

Genotoxicity in vitro

Mutagenicity (mammal cell test): chromosome aberration.

Result: negative

Method: OECD Test Guideline 473

Ames test

Salmonella typhimurium

Result: negative

Method: OECD Test Guideline 471

Carcinogenicity

Did not show carcinogenic effects in animal experiments. (IUCLID)

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.

Target Organs: Central nervous system

Specific target organ toxicity - repeated exposure

Product Name	Acetone

No data available.

Aspiration hazard

No data available

11.2 Further Information:

After absorption:

Headache, Salivation, Nausea, Vomiting, Dizziness, narcosis, Coma

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity:

Toxicity to fish

LC50 Oncorhynchus mykiss (rainbow trout): 5,540 mg/l; 96 h

(Lit.)

Toxicity to daphnia and other aquatic

EC50 Daphnia magna (Water flea): 6,100mg/l; 48 h

(Lit.)

EC5 E.sulcatum: 28 mg/l; 72 h

(maximum permissible toxic concentration) (Lit.)

Toxicity to algae

NOEC M.aeruginosa: 530 mg/l; 8 d

Analytical monitoring: no

DIN 38412

(maximum permissible toxic concentration) (IUCLID)

Toxicity to bacteria

EC50 activated sludge: 59 - 67.4 mg/l; 30 min

(Lit.)

EC5 Pseudomonas putida: 1,700 mg/l; 16 h

(maximum permissible toxic concentration) (IUCLID)

12.2 Persistence and degradability:

Product Name	Acetone

Biodegradability

91 %; 28 d

(IUCLID)

Readily biodegradable

Biochemical Oxygen Demand (BOD)

1850 mg/g (5 d)

(IUCLID)

Chemical Oxygen Demand (COD)

2070 mg/g

(IUCLID)

Theoretical oxygen demand (ThOD)

2200 mg/g

(Lit.)

12.3 Bioaccumulate potential:

Partition Coefficient: - n-Octanol/water

Log Pow: -0.24 (experimental)

(Lit.) Bioaccumulation is not expected.

12.4 Mobility in soil:

No data available

12.5 Results of PBT and vPvB assessment

Substance(s) in the mixture does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

12.6 Other adverse effects:

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1 Waste treatment methods:

Waste material must be disposed of in accordance with the national and local regulations.

Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

SECTION 14: Transport information

	Land transport (ADR/RID)	Air transport (IATA)	Sea transport (IMDG)
14.1 UN number	UN 1090	UN 1090	UN 1090

Product Name	Acetone

14.2 Proper shipping name	Acetone	Acetone	Acetone
14.3 Class	3	3	3
14.4 Packing group	II	II	II
14.5 Environmentally hazardous	--	--	--
14.6 Special precautions for user	Yes Tunnel Restriction code – D/E	No	Yes Ems F-E S-D
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not Relevant			

SECTION 15: Regulatory information

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

National Legislation

Storage class 3

15.2 Chemical safety assessment:

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H225 Highly flammable liquid and vapour.

H319 Causes Serious Eye irritation.

H336 May cause drowsiness or dizziness.

Training advice

Provide adequate information, instruction and training for operators.

References: Not available

Created: 27/07/2021

Updated On: 29/09/2022

Disclaimer:

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