

**Safety data sheet as per COMMISSION REGULATION (EU) No 453/2010
of 20 May 2010 amending Regulation (EC) No 1907/2006**

Product: Acetone



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

1.1 Product identifier

Trade name: Acetone

CAS No.: 67-64-1

EC No.: 200-662-2

Pre-Registration number 17-2119643029-40-0000

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

Relevant identified uses:

As a chemical feedstock: For manufacture of downstream chemicals

As a formulating solvent for commercial products: Useful as a formulating solvent for a variety of paints, inks, resins, varnishes, lacquers, surface coatings, paint removers, and automotive care products.

As an industrial process solvent: Used to manufacture cellulose acetate yarn, polyurethane foam, vitamin C, and smokeless gun powder

Uses identified against: no data available

1.2 Details of the supplier of the safety data sheet:

Manufacturer/Supplier:

Prasol Chemicals Ltd.,
Prasol House, Plot No.A-17/2/3,
T.T.C. Indl. Area, Khairne M.I.D.C.,
Navi Mumbai - 400 710.
Maharashtra, India.
Tel: +91-22-27782555
Fax: +91-22-27782430

Further information obtainable from:

Mr. Dhaval Parikh

e-mail:sales@prasolchem.com; inquiry@prasolchem.com

1.4 Information in case of emergency:

Product safety department Tel: +91-22- 27782555; Fax:+91-22- 27782430

Other Comments (e.g. language(s) of the phone service): English

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008(CLP)



GHS02



GHS07

Flam. Liq. 2 H225 Highly flammable liquid and vapor

Eye Irrit. 2 H319 Causes serious eye irritation

STOT SE 3 H336 May cause drowsiness or dizziness

EUH066 Repeated exposure may cause skin dryness or cracking

2.1.2 Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xi; Irritant



F; Highly flammable

R11: Highly flammable

R36: Irritating to eyes

R66: Repeated exposure may cause skin dryness or cracking

R67: Vapors may cause drowsiness and dizziness.

Information concerning particular hazards for human and environment: Not applicable

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Long or repeated contact with skin may cause dermatitis due to the degreasing effect of the solvent

2.2 Label elements

Labeling according to Regulation (EC) No 1272/2008 (CLP)

The substance is classified and labeled according to the CLP regulation.

Hazard pictograms



GHS02



GHS07

Signal word Danger

Hazard-determining components of labeling: Void

Hazard statements

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

Precautionary statements

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

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

P405 Store locked up

P501 Dispose of contents/container in accordance with local/regional/national/international regulations

2.3 Other hazards

Results of PBT and vPvB assessment: Not applicable

SECTION 3: Composition/information on ingredients

Chemical characterization:

CAS No. Description

67-64-1 Acetone

Identification number(s)

EC Number : 200-662-2

Index number : 606-001-00-8

Additional information:

Molecular Formula: C₃H₆O

Molecular Weight: 58.08g/mol

SECTION 4: First aid measures

4.1 General information:

After inhalation: Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. Consult a doctor.

After skin contact: Remove and isolate contaminated clothing and shoes. In case of contact with substance, immediately flush skin with running water. Wash skin with soap and water. In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin. Keep victim warm and quiet.

After eye contact: Immediately flush eyes with running water for at least 20 minutes. If symptoms persist consult a doctor.

After swallowing: If symptoms persist consult doctor.

Information for doctor:

Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

4.2 Most important symptoms and effects, both acute and delayed

Substance causes eye irritation or damage.

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4.3 Indication of any immediate medical attention and special treatment needed Symptoms following acute acetone ingestion include nausea, vomiting, gastric hemorrhage, sedation, respiratory depression, ataxia, and paresthesia.

Treatment

ORAL EXPOSURE: Generally requires no specific intervention. Administer intravenous fluids and antiemetics as necessary.

SEVERE POISONING: Administer intravenous 0.9% saline for hypotension or persistent tachycardia. Endotracheal intubation and mechanical ventilation may be required in patients with CNS or respiratory depression. Evaluate for gastrointestinal bleeding after large ingestion.

INHALATION EXPOSURE: Remove from exposure. Administer oxygen if respiratory distress develops. Treat wheezing or persistent coughing with inhaled beta agonists.

EYE EXPOSURE: Irrigate eyes with 0.9% saline after splash exposures. Perform a slit lamp exam in patients with persistent irritation. Refer to an ophthalmologist if corneal injury is present.

SECTION 5: Firefighting measures

5.1 Suitable extinguishing agents: Small fires: Dry chemical, CO₂, water spray or alcohol-resistant foam. Large fires: Water spray, fog or alcohol resistant foam. Use water spray or fog;

5.2 Special hazards caused by the substance, its products of combustion or resulting gases:

Highly flammable, will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers.

Fire may produce irritating, corrosive and/or toxic gases. Vapors may cause dizziness or suffocation.

Containers may explode when heated.

5.3 Protective equipment: Wear positive pressure self-contained breathing apparatus (SCBA).

Additional information

A vapor suppressing foam may be used to reduce vapors.

Water spray may reduce vapor; but may not prevent ignition in closed spaces. Runoff from fire control may cause pollution.

SECTION 6: Accidental release measures

6.1 Person-related safety precautions:

Wear protective clothing.

Keep unprotected persons away. Do not touch or walk through spilled material.

Stop leak if you can do it without risk.

6.2 Measures for environmental protection:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

6.3 Measures for cleaning/collecting:

Eliminate all ignition sources. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material. A vapor suppressing foam may be used to reduce vapors.

Large spills: Dike far ahead of liquid spill for later disposal.

Additional information: All equipment used when handling the product must be grounded.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment

See Section 13 for disposal information

SECTION 7: Handling and storage

7.1 Precautions for safe handling:

Avoid breathing vapors. Keep upwind. Do not handle broken packages without protective equipment. Wash away any material which may have contacted the body with copious amounts of water or soap and water.

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Information about fire - and explosion protection:

Eliminate all ignition sources (Do not smoke, flares, sparks or flames in immediate area). Protect against electrostatic charges.

Storage:

7.2 Conditions for safe storage, including any incompatibilities: Acetone is stored in steel tanks. Local exhaust ventilation should be applied wherever there is an incidence of point source emissions or dispersion of regulated contaminants in the work area.

Information about storage in one common storage facility: Store away from incompatibles.

Further information about storage conditions:

Store acetone in closed containers, and keep away from heat, sparks, and flames. Store in cool and dry conditions.

Additional information about design of technical facilities: Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

7.3 Specific end use(s) No further relevant information available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace: IOELV (EU) 1210 mg/m³, 500 ppm

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

Protection of hands: Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Tightly sealed goggles; Face shield

Body protection: Protective clothing made from polyethylene or chlorinated polyethylene.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	: Colorless liquid
Odour	: mildly pungent, somewhat aromatic
Odour threshold	: 20ppm
pH	: 5-6
Melting point/Melting range	: -94.8°C
Boiling point/Boiling range	: 55.8-56.6°C
Flash point	: -17°C (closed cup)
Evaporation rate	: 6 (butyl acetate= 1)
Flammability	: highly flammable
Upper/lower flammability or explosive limits:	
Lower:	2.2vol%
Upper:	13 vol%
Vapour pressure at 20°C	: 240 hPa

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Vapour density : 2 (Air = 1)
Density at 20°C : 0.79 g/cm³
Solubility in / Miscibility with water : Fully miscible
Partition coefficient (n-octanol/water) at 23°C: -0.24 log POW
Auto-ignition temperature : 465°C
Decomposition temperature : no data
Viscosity: Dynamic at 20°C : 0.32 mPas
Explosive properties: Product is not explosive. However, formation of explosive air/ vapour mixtures is possible
Oxidising properties : no oxidising properties
9.2 Other information
Surface tension at 25°C: 23.1mN/m
Critical temperature: 455 °F= 235 °C; critical pressure: 46.4 atm

Section 10: Stability and reactivity

10.1 Reactivity No dangerous reactions known.
10.2 Chemical stability
10.3 Possibility of hazardous reactions
10.4 Conditions to avoid
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
10.5 Incompatible materials Oxidizers, Acids
Dangerous reactions: Acetone will be oxidized with explosive violence if brought into contact with the mixed (nitrating) acids, particularly under confinement.
10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity:
LD 50 Oral 5800 mg/kg rat
LC50 Inhalation 3hr- 132 mg/L guinea pig
LD50 Dermal >9.4 mL/kg rabbit
Skin corrosion/irritation: No irritant effect (rabbit) Prolonged or repeated skin contact may produce dermatitis
Serious eye damage/irritation: Irritating effect (rabbit)
Respiratory or skin sensitization: No sensitizing effects known.
Germ cell mutagenicity: non mutagenic
Carcinogenicity: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC
Reproductive toxicity: not toxic
STOT-single exposure: irritating to eye
STOT-repeated exposure: can cause dermatitis
Aspiration hazard: no data available
Additional information: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

SECTION 12: Ecological information

12.1 Toxicity
Aquatic toxicity:
LC50 96h 7163 mg/L (Pimephales Promelas/ Fathead Minnow)
EC50 48 h 8800 mg/L (Daphnia pulex/ water flea)
NOEC 8 d 530 mg/L (Microcystis aeruginosa/cyanobacteria)
12.2 Persistence and degradability
Biodegradation: Readily biodegradable
Photo degradation: Undergoes slow photolysis to CO₂, CO, CH₃OH, and CH₂O. The photo dissociation lifetime for

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40°solar angle is 1/kdissoc = 14.8 days. Water: T1/2 >43 hr; Air : T1/2=80hr

12.3 Bio accumulative potential low potential for bioaccumulation.

12.4 Mobility in soil Estimated Koc of 2.07

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

SECTION 13: Disposal considerations

Waste treatment methods Do not dispose of with household waste.

Product:

Recommendation

Acetone is a good candidate for liquid injection incineration with a temperature of 650-1,600 deg C with a residence time of 0.1-2 seconds.

Incineration: Spray into a furnace. Incineration will become easier by mixing with a more flammable solvent.

Contaminated packaging: Dispose of waste according to applicable legislation. Handle contaminated packages in the same way as the substance itself. Non-contaminated packages may be recycled.

SECTION 14: Transport information

Land Transport (ADR/RID)

Marine Transport (IMDG)

Air Transport (ICAO/ IATA)

14.1 UN/ID Number: 1090

14.2 UN proper shipping name: UN 1090, ACETONE

14.3 Transport hazard class: 3 Flammable liquids

14.4 Packaging group: II

14.5 Environmental hazards: not a marine pollutant

14.6 Special precautions for the user:

Danger code (Kemmler): 33

Tunnel restriction code: D/E

EMS Number: F-E, S-D

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: no data available

SECTION 15: Regulatory information

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

This safety datasheet complies with the requirements of COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006

Hazard pictograms Please refer section 2

Signal word Danger

Labeling according to EU guidelines:

Code letter and hazard designation of product: Please refer section 2

Risk phrases: Please refer section 2

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out and will be applicable at the time of REACH Registration.

Substances of very high concern (SVHC) according to REACH, Article 57 The substance is not listed as SVHC.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing MSDS:

Product safety department.

Contact: Tel: +91-022-27782555 Fax: +91-022-27782430

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Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

CAS: Chemical Abstracts Service (division of the American Chemical Society)

EC50: half minimal effective concentration

EINECS/ EC: European Inventory of Existing Commercial Chemical Substances

EMS Number: Emergency Schedule Number

GHS: Globally Harmonized System of Classification and Labeling of Chemicals

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

IMDG: International Maritime Code for Dangerous Goods

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NOEC: No Observed Effect Concentration (NOEL No Observable Effect Level)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

Sources

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

ECHA: http://apps.echa.europa.eu/registered/data/dossiers/DISS-9d998764-70a1-6f6e-e044-00144f67d249/DISS-9d998764-70a1-6f6e-e044-00144f67d249_DISS-9d998764-70a1-6f6e-e044-00144f67d249.html

CDC : <http://www.cdc.gov/niosh/docs/81-123/pdfs/0004.pdf>

Chemidplus : <http://chem.sis.nlm.nih.gov/chemidplus/rn/67-64-1>

OECD SIDS : <http://www.inchem.org/documents/sids/sids/67641.pdf>

ALFA MSDS : <http://www.alfa.com/content/msds/english/L10407.pdf>

ACTOR : <http://actor.epa.gov/actor/GenericChemicalPdfServlet?casrn=67-64-1>

Data compared to the previous version altered.

- Section 3: Composition/information on ingredients
- Section 4: First-aid measures.
- Section 5: Fire-fighting measures
- Section 6: Accidental Release measures
- Section 7: Handling and storage.
- Section 8: Exposure Controls/Personal protection.
- Section 9: Physical and Chemical properties.
- Section 10: Stability and Reactivity.
- Section 11: Toxicological Information.
- Section 12: Ecological Information.
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