

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



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

1.1 Product identifier

Trade name: 4-hydroxy-4-methylpentan-2-one/ Diacetone alcohol

CAS No.: 123-42-2

EC No.: 204-626-7

Pre-Registration number 05-2114672539-34-0000

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

Relevant identified uses: -It is used in cellulose ester lacquers, particularly of the brushing type, where it produces brilliant gloss and hard film and where its lack of odor is desirable.

-It is also used in lacquer thinners, dopes, wood stains, wood preservatives and printing pastes; in coating compositions for paper and textiles; in making artificial silk and leather; in imitation gold leaf; in celluloid cements; as a preservative for animal tissue etc.

Sector of use: SU 3 industrial uses

Environmental release category: Manufacture (ERC1) and formulations (ERC2)

Uses identified against:

1.3 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

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

Eye Irrit. 2 H319 Causes serious eye irritation

Flammable liquid 3 H226 flammable liquid and vapour

STOT Single Exp. 3 H335 May cause respiratory tract irritation

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



Xi; Irritant

R36/37: Irritating to eyes and respiratory system

Information concerning particular hazards for human and environment: Not applicable

2.2 Label elements

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

Hazard pictograms



GHS02

GHS07

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

Product: Diacetone alcohol



PRASOL

Signal word Warning

Hazard-determining components of labeling: Void

Hazard statements

H319 Causes serious eye irritation

H226 Flammable liquid 3

H335 Causes respiratory tract irritation STOT SE 3

Precautionary statements

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

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

P303+P361+P353 IF ON SKIN (or hair): 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

123-42-2 4-hydroxy-4-methylpentan-2-one/ Diacetone alcohol $\geq 99\%$ purity

Identification number(s)

EC Number : 204-626-7

Index number : 603-016-00-1

Additional information:

Molecular Formula: C₆H₁₂O₂

Molecular Weight: 116.16g/mol

SVHC The substance is not in the list of SVHC substances

SECTION 4: First aid measures

4.1 General information: Consult a physician. Show this safety data sheet to the doctor in attendance.

After inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

After skin contact: Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

After eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

After swallowing: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The following symptoms may occur: Unconsciousness Dizziness Headache

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

Information for doctor: Treat symptomatically and supportively.

SECTION 5: Firefighting measures

5.1 Suitable extinguishing agents:

For small fire use dry chemical powder, Carbon dioxide, alcohol resistant foam water fog, sand. For large fire use alcohol resistant foam or water fog

5.2 Special hazards arising from the substance or mixture No further relevant information available

5.3 Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Additional information Use water spray to cool unopened containers

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Product: Diacetone alcohol



SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing 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: Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations

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 contact with skin and eyes. Avoid inhalation of vapor or mist. Take measures to prevent the buildup of electrostatic charge.

Information about fire - and explosion protection: Keep ignition sources away. Do not smoke.

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.

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

Further information about storage conditions: Store away from moisture. Store in cool and dry place.

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: Not required.

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

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:

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose 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).

Protection of hands: Protective gloves

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

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

Body protection:

Complete suit protecting against chemicals. Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	: Colorless liquid
Odour	: Pleasant
Odour threshold	: 0.28ppm
pH	: not determined (does not liberate H ions when dissolved)
Melting point/Melting range	: -47°C
Initial Boiling point/Boiling range	: 150-172°C
Flash point	: 58°C
Evaporation rate	: 0.15 (butyl acetate=1)
Flammability	: flammable
Upper/lower flammability or explosive limits:	
Lower: 1.4vol%	
Upper: 8.1 vol%	
Vapour pressure at 20°C	: 1.1 hPa
Vapour density	: 4 (air = 1) at boiling point
Relative density at 20°C	: 0.93-0.94
Solubility in / Miscibility with water	: >1000mg/L (Fully miscible)
Partition coefficient (n-octanol/water) at 20°C:	1.9 log POW
Auto-ignition temperature	: 620°C
Self-igniting temperature	: 643°C
Decomposition temperature	: not determined
Viscosity	: 2.9mPa/s
Explosive properties:	Product is not explosive; however, an explosive vapor/air mixture can be formed
Oxidising properties	: none

9.2 Other information
Critical temperature: 633 °F= 334 °C; critical pressure: 36atm

SECTION 10: Stability and Reactivity

10.1 Reactivity No dangerous reactions known.

10.2 Chemical stability

Under storage at normal ambient temperatures (minus 40° C to + 40° C), the product is stable.

No hazardous reaction when handled and stored according to provisions.

10.3 Possibility of hazardous reactions No known hazardous reactions

10.4 Conditions to avoid Heat, flames and sparks.

10.5 Incompatible materials: Strong oxidizing agents, Strong bases

10.6 Hazardous decomposition products: carbon oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

LD50 Oral rat 4000 mg/kg

LD50 Dermal rat 13630 mg/kg

Skin corrosion/irritation: minimally irritating (rabbit); may be harmful if absorbed through skin

Serious eye damage/irritation: Severe eye irritation 24 h (rabbit)

Respiratory or skin sensitization: No sensitizing effects known (guinea pigs)

Germ cell mutagenicity: Based on available data, the classification criteria are not met

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: Based on available data, the classification criteria are not met

STOT-single exposure: Inhalation - May cause respiratory irritation. - Lungs

STOT-repeated exposure: Based on available data, the classification criteria are not met

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

Additional information: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

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**Safety data sheet as per COMMISSION REGULATION (EU) No 453/2010
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SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

LC50 96h 420mg/l (Lepomis macrochirus)

LC50 24h 9000 mg/L (Daphnia magna)

12.2 Persistence and degradability

Biodegradation readily biodegradable; 98.51% in 28d

12.3 Bio accumulative potential not expected to bioaccumulate.

12.4 Mobility in soil No further relevant information available

12.5 Results of PBT and vPvB assessment: TO BE PROVIDED IN THE REGISTRATION DOSSIER

PBT/vPvB assessment not applicable

12.6 Other adverse effects No further relevant information available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product:

Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging: Disposal must be made according to official regulations.

Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

Land Transport (ADR/RID)

Marine Transport (IMDG)

Air Transport (ICAO/ IATA)

14.1 UN/ID Number: 1148

14.2 UN proper shipping name: 1148 DIACETONE ALCOHOL

14.3 Transport hazard class: 3

14.4 Packaging group: III

14.5 Environmental hazards: not a marine pollutant

14.6 Special precautions for the user: flammable

Danger code (Kemler) : 30

EMS Number : F-E,S-D

Stowage Category : A

ADR:

Limited quantities (LQ) 5L

Excepted quantities (EQ) Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

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 Warning

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.

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of 20 May 2010 amending Regulation (EC) No 1907/2006
Product: Diacetone alcohol**



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 SDS:

Product safety department

Contact:

Tel: +91-22- 27782555

Fax: +91-22- 27782430

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)

EINECS: European Inventory of Existing Commercial Chemical Substances

EMS: Emergency Schedule

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

IMDG: International Maritime Code for Dangerous Goods

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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://echa.europa.eu/registration-dossier/-/registered-dossier/13357/2/1>

Sigma MSDS <http://www.sigmaaldrich.com/catalog/DisplayMSDSContent.do>

Inchem <http://www.inchem.org/documents/sids/sids/123422.pdf>

Chemindustry <http://www.chemindustry.com/chemicals/0599830.html>

HSDB <http://toxnet.nlm.nih.gov/cgi-bin/sis/search/f?/temp/~savcql:1>

Data compared to the previous version altered.

- Section 1: Chemical Product and Company Identification
- Section 3: Composition and Information on Ingredients
- Section 4: First Aid Measures
- Section 5: Fire and Explosion Data
- 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 Data
- Section 11: Toxicological Information
- Section 12: Ecological Information
- Section 13: Disposal Considerations