



SAFETY DATA SHEET

Date of issue: 21/02/03

1. Identification of the substance/preparation and of the company/undertaking

Identification of the product

Catalogue No: 27023

ID No.: 1000300

Product name: **Acetone GPR**

Use of the substance/preparation: General chemical reagent

Manufacturer/supplier identification

Company: VWR International Ltd
Hunter Boulevard, Magna Park, Lutterworth, Leicestershire, England, LE17 4XN
Telephone : + 44 (0) 1455 558600 Telefax : + 44 (0) 1455 558586

Emergency telephone No.: + 44 (0) 1202 669700

2. Composition/information on ingredients

Chemical characterization

Organic solvent

Product name: Acetone

Synonyms: Dimethyl ketone, 2-propenone

CAS number: 67-64-1

EC-No.: 200-662-2

EC Index No.: 606-001-00-8

Molecular formula: $(CH_3)_2C=O = 58.08 \text{ g/mol}$

3. Hazards identification

Highly flammable. Irritating to eyes. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

4. First aid measures

- Eye contact: Irrigate thoroughly with water for at least 10 minutes. OBTAIN MEDICAL ATTENTION.
- Inhalation: Remove from exposure, rest and keep warm. In severe cases, or if exposure has been great, OBTAIN MEDICAL ATTENTION.
- Skin contact: Drench the skin thoroughly with water. Remove contaminated clothing and wash before re-use. Unless contact has been slight, OBTAIN MEDICAL ATTENTION.
- Ingestion: Wash out mouth thoroughly with water and give plenty of water to drink. OBTAIN MEDICAL ATTENTION.

5. Fire-fighting measures

Special risks:

Highly flammable. Vapour/air mixture explosive. Vapours heavier than air.
Keep away from sources of ignition.

Suitable extinguishing media:

Water spray, foam, dry powder or carbon dioxide Cool container with water spray from a safe distance.

Do not stay in dangerous zone without respiratory protective equipment. Prevent fire fighting water entering watercourses or ground-water.

6. Accidental release measures

Shut off all sources of ignition. Wear appropriate protective clothing. Ensure supply of fresh air in enclosed rooms. Do not allow to enter sewerage system; risk of explosion!

Absorb on an inert absorbent, (e.g. BDH Spillage absorption granules), transfer to a suitable container and arrange removal by disposal company. Wash site of spillage thoroughly with water and detergent.

For large spillages liquids should be contained with sand or earth and both liquids and solids transferred to salvage containers. Any residues should be treated as for small spillages.

7. Handling and storage

Handling:

Take precautions against static discharge. All electrical equipment must be flameproofed. Work under fume extractor. Do not inhale substance.

Unsuitable working materials: various plastics.

Storage:

Store at room temperature (15 to 25°C recommended). Keep well closed and protected from direct sunlight and moisture. Store small containers in suitable flammable liquid storage cabinets when not in use. Larger drums (200l) must be kept in purpose-built stores.

8. Exposure controls/personal protection

UK Exposure Limits:

WEL, Acetone:

Long-term: 1,210 mg/m³ (500 ppm) Short term: 3,620 mg/m³ (1,500 ppm) (IOELV)

Personal protective equipment:

As appropriate to the situation and the quantity handled. Engineering methods to control or prevent exposure are preferred. Methods could include process enclosure or mechanical ventilation.

- Ventilation: Fume cupboard, flameproof
- Respirator: Self-contained breathing apparatus required when vapours/aerosols are generated.
- Gloves: Butyl rubber, PE/EVAL (Silver Shield). Gloves subject to permeation or any sign of degradation must be removed and replaced immediately.
- Eye Protection: Goggles or face-shield
- Other Precautions: Plastic apron, sleeves, boots - if handling large quantities

9. Physical and chemical properties

General information:

| | |
|---------|----------------|
| Form: | liquid |
| Colour: | colourless |
| Odour: | characteristic |

Health, safety and environmental information:

| | |
|----------------------------------|--|
| Melting temperature | -95.4°C |
| Boiling temperature | 56.2°C |
| Density(g/ml) | 0.79 |
| Vapour pressure | 233 hPa (20°C) |
| Relative vapour density: | 2.01 |
| Solubility in water | Miscible in all proportions |
| pH value | 5 -6 (400 g/l, water, 20°C) |
| Flash point | <-20°C |
| Explosion limits: | lower: 2.6 % v/v |
| | upper: 13 % v/v |
| Auto-ignition temperature | 538°C |
| Viscosity: | 0.32 mPas (20°C) |
| Log P(o/w): | -0.24 |
| Additional data: | Refractive index: 1.3587 (20°C, 589nm) |
| Dielectric constant: 20.7 (20°C) | |
| Dipole moment: 2.7 Debye (20°C) | |

10. Stability and reactivity

Stable.

Substances to be avoided

alkali hydroxides, halogens, halogenated hydrocarbons/alkali hydroxides, halogen-halogen compounds, oxidizing agents, halogen oxides, nitrosyl compounds, ethanolamine.

The possibility of reaction with other substances cannot be excluded.

11. Toxicological information

- After inhalation of vapours: mucosal irritation. In high doses: headache, salivation, nausea, vomiting, dizziness, narcosis, coma.
- After eye contact: Risk of corneal clouding.
- After skin contact: Degreasing effect on the skin, possibly followed by secondary inflammation.
- After ingestion: gastrointestinal complaints, headache, salivation, nausea, vomiting, dizziness, narcosis, coma. After long-term exposure to the chemical: ataxia.

Odour threshold: ~31 mg/m³ (13 ppm)

Further data

LD50 (oral, rat): 5800 mg/kg

LC50 (inhalation, rat): 50 mg/l

LD50 (dermal, rabbit): 20000 mg/kg

Skin irritation test (rabbit): moderate irritant effect

Eye irritation test (rabbit): severe irritant effect

We have no evidence of carcinogenic effects. We have no evidence of mutagenic or teratogenic effects.

12. Ecological information

Low aquatic toxicity. Bioaccumulation potential: low (Log Pow <2). Biological degradability: good. No environmental hazard is anticipated provided that the material is handled and disposed of with due care and attention.

Further ecological data:

Daphnia toxicity: EC50 (Daphnia magna): 12,600 mg/l/48hr

Fish toxicity: LC50 (L. macrochirus): 8,300 mg/l/96hr

Remarks:

Do not allow to enter sewerage system; risk of explosion!

13. Disposal considerations

Chemical residues are generally classified as hazardous or special waste, and as such are covered by regulations which vary according to location. Contact your local waste disposal authority for advice, or pass to a chemical disposal company. Rinse out empty containers thoroughly before returning for recycling.

When recovery and recycling is not possible, incineration in a high temperature incinerator is the recommended method of disposal.

14. Transport information

UN-No.: 1090

Class: 3

Packaging group: II

Proper shipping name: ACETONE

15. Regulatory information

Labelling according to EC directives

Symbol(s): F Xi Highly flammable. Irritant.

R-phrases: R11-36-66-67

Highly flammable. Irritating to eyes. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

S-phrases: S9-16-26

Keep container in a well-ventilated place. Keep away from sources of ignition - No smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

EC-No.: 200-662-2

Local Regulations

Within the UK, the use of this material must be assessed under the Dangerous Substances and Explosive Atmospheres (DSEAR) Regulations.

U.K. Transport Category 2

Within the UK, the use of this material must be assessed under the Control of Substances Hazardous to Health (COSHH) regulations.

16. Other information

In EINECS.
In TSCA Inventory.

Revision.
Supersedes edition of: 20/12/99
Reason for alteration: General update.

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