# Safety Data Sheet

Date of Issue: 25.08.2021 Date of Expiry: 25.08.2026

## 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Company Name** : **ECP Limited**
Address : PO Box 34125, Birkenhead, Auckland 0746
Telephone : +64 9 480 4386
Facsimile : +64 9 480 4385
Emergency phone number : 0800 243 622 (24 hours)

| | |
|---|---|
| **Product Name** | Acetone |
| **Product Code** | 1060 |
| **CAS No.** | 67-64-1 |

**Recommended use** : Laboratory Investigations

## 2: Hazard's identification

### 2.1 GHS Classification

Flammable Liquids (Category B), H225
Skin irritation (Category B), H316
Eye irritation (Category A), , H319
Specific Target Organ Toxicity (Category B), Central nervous system, H336

### 2.2 GHS Label elements, including precautionary statements

Pictogram



**Signal word Danger**
**Hazard statement(s)**
H225 Highly flammable liquid and vapor.
H316 Causes mild skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

**Precautionary statement(s)**
**Prevention**
P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response**
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

**Storage**
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
**Disposal**
P501 Dispose of contents/ container to an approved waste disposal plant.

**2.3 Other hazards**
Repeated exposure may cause skin dryness or cracking.

## 3: Composition/information on ingredients

**3.1 Substances**
Formula : C3H6O
Molecular weight : 58.08 g/mol
CAS-No. : 67-64-1

## 4: First aid measures

**4.1 Description of first-aid measures**
**General advice**
Show this material safety data sheet to the doctor in attendance.

**If inhaled**
After inhalation: fresh air. Call in physician.

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

**In case of eye contact**
After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

**If swallowed**
After swallowing: immediately make victim drink water (two glasses at most). Consult a

physician.

**4.2 Most important symptoms and effects, both acute and delayed**
The most important known symptoms and effects are described in the labelling

## 5: Firefighting measures

**5.1 Extinguishing media**

**Suitable extinguishing media**
Carbon dioxide (CO2) Foam Dry powder
Unsuitable extinguishing media
For this substance/mixture no limitations of extinguishing agents are given.

**5.2 Special hazards arising from the substance or mixture**
Carbon oxides
Combustible.
Pay attention to flashback.
Vapours are heavier than air and may spread along floors.
Development of hazardous combustion gases or vapours possible in the event of fire.
Forms explosive mixtures with air at ambient temperatures.

**5.3 Advice for firefighters**
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.

## 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures**
Advice for non-emergency personnel: Do not breathe vapors, 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.

**6.2 Environmental precautions**
Do not let product enter drains. Risk of explosion.

**6.3 Methods and materials for containment and cleaning up**
Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb® ).
Dispose of properly. Clean up affected area.

**6.4 Reference to other sections**
For disposal see section 13.

## 7: Handling and storage

**7.1 Precautions for safe handling**
Advice on safe handling
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
Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance

## 8: Exposure controls/personal protection

**8.1 Control parameters**
Occupational Exposure Limits Table

**8.2 Exposure controls**
**Appropriate engineering controls**
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment

**Eye/face protection**
Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards.

**Skin protection**
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection**
Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type or 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.

## 9: Physical and chemical properties

| | |
|---|---|
| a) Appearance | |
| Form | : clear, liquid |
| Colour | : colourless, |
| b) Odour | : No data available |
| c) Odour Threshold | : No data available |
| d) pH | : No data available |
| e) Melting point/freezing point | |
| Melting point/range | : -94 °C - lit. |
| f) Initial boiling point and boiling range | : 56 °C at 1,013 hPa - lit. |
| g) Flash point | : -17.0 °C - closed cup |
| h) Evaporation rate | : No data available |
| i) Flammability (solid,gas) | : No data available |
| j) Upper/lower flammability or | : No data available |

explosive limits

| | |
|---|---|
| k) Vapour pressure | : 245.3 hPa at 20.0 °C |
| l) Vapour density | : No data available |
| m) Relative density | : 1.159 g/cm3 |
| n) Water solubility | : soluble, in all proportions |
| o) Partition coefficient n-octanol/water | : No data available |
| p) Auto-ignition temperature | : 465.0 °C |
| q) Decomposition pressure temperature | : Distillable in an undecomposed state at normal |
| r) Viscosity | : No data available |
| s) Explosive properties | : No data available |
| t) Oxidizing properties | : No data available |

**9.2 Other safety information**
Conductivity 0.01 µS/cm at 20 °C
Surface tension 23.2 mN/m at 20.0 °C

## 10: Stability and reactivity

**10.1 Reactivity**
Vapours may form explosive mixture with air.

**10.2 Chemical stability**
The product is chemically stable under standard ambient conditions (room temperature) .

**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
Sulfur dichloride
phosphorous oxychloride

**10.4 Conditions to avoid**
Warming.

**10.5 Incompatible materials**
rubber, various plastics
**10.6 Hazardous decomposition products**
In the event of fire: see section 5

## 11: Toxicological information

**11.1 Information on toxicological effects**
**Acute toxicity**
LD50 Oral - Rat - female - 5,800 mg/kg
Remarks: (ECHA)
LC50 Inhalation - Rat - 4 h - 76 mg/l
Remarks: UnconsciousnessDrowsinessDizziness(External MSDS)
LD50 Dermal - Rabbit - 20,000 mg/kg
Remarks: (IUCLID)

**Skin corrosion/irritation**
Skin - Rabbit
Result: Mild skin irritation - 24 h
(Draize Test)
Remarks: (RTECS)

**Serious eye damage/eye irritation**
Eyes - Rabbit
Result: Eye irritation - 24 h
(Draize Test)
Remarks: (RTECS)

**Respiratory or skin sensitization**
Maximization Test - Guinea pig
Result: Not a skin sensitizer.
Remarks:
(ECHA)
Chronic exposure may cause dermatitis.

**Germ cell mutagenicity**
Test Type: Mutagenicity (mammal cell test): chromosome aberration.
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Test system: Mouse lymphoma test
Metabolic activation: without metabolic activation

Method: OECD Test Guideline 476
Result: negative

**Carcinogenicity**
No data available

**Reproductive toxicity**
No data available

**Specific target organ toxicity - single exposure**
Inhalation - May cause drowsiness or dizziness. - Narcotic effects
Specific target organ toxicity - repeated exposure
No data available
Aspiration hazard
No data available

**11.2 Additional Information**
RTECS: AL3150000
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
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.
Kidney - Irregularities - Based on Human Evidence
Skin - Dermatitis - Based on Human Evidence

## 12: Ecological information

**12.1 Toxicity**
Toxicity to fish
flow-through test LC50 - Pimephales promelas (fathead minnow) - 6,210 mg/l - 96 h
(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates
static test LC50 - Daphnia pulex (Water flea) - 8,800 mg/l - 48 h
Remarks: (ECHA)

Toxicity to algae
static test NOEC - M.aeruginosa - 530 mg/l - 8 d
(DIN 38412)
Remarks: (maximum permissible toxic concentration)
(IUCLID)

Toxicity to bacteria
static test EC50 - activated sludge - 61.15 mg/l - 30 min

(OECD Test Guideline 209)

**12.2 Persistence and degradability**
Biodegradability aerobic - Exposure time 28 d
Result: 91 % - Readily biodegradable.
(OECD Test Guideline 301B)

| | |
|---|---|
| Biochemical Oxygen Demand (BOD) | 1,850 mg/g<br>Remarks: (IUCLID) |
| Chemical Oxygen Demand (COD) | 2,070 mg/g<br>Remarks: (IUCLID) |
| Theoretical oxygen Demand | 2,200 mg/g<br>Remarks: (Lit.) |

12.3 Bioaccumulative potential
Does not bioaccumulate.

**12.4 Mobility in soil**
No data available

**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**
Additional ecological information
No data available

## 13: Disposal considerations

**13.1 Waste treatment methods**
**Product**
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. See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

## 14: Transport Information Table

| | | ADR/RID – European packaging certification | IMDG International Maritime Dangerous Goods Code | IATA – DGR International Air Travel Association – Dangerous Goods Regulations |
|---|---|---|---|---|
| 14.1 | UN Number | 1090 | 1090 | 1090 |
| 14.2 | UN Proper Shipping name | ACETONE | ACETONE | Acetone |
| 14.3 | Transport Hazard Class | 3 | 3 | 3 |
| 14.4 | Packaging group | II | II | II |

| | | | | |
|---|---|---|---|---|
| **14.5** | **Environmental Hazards** | no | no | no |
| **14.6** | **Special precautions for user** | None | | |
| **14.7** | **Incompatible materials** | rubber, various plastics | | |

**Other regulations**
Hazchem Code : •2YE

## 15: Regulatory information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
**National regulatory information**
HSNO Approval Code: HSR001070
HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits Group Standard 2006
Tracking Required: not required
Approved Handler Cert.: not required

## 16: Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

---

****END*******END*******END*******END*******END****