



Safety Data Sheet

Date of Issue: 25.08.2021

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1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name : ECP Limited
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Emergency phone number : 0800 243 622 (24 hours)

Product Name	Acetone
Product Code	2440
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
For the full text of the H-Statements mentioned in this Section, see Section 16.

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 : 56 °C at 1,013 hPa - lit.

and boiling range

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 explosive limits	: No data available
k) Vapour pressure	: 245.3 hPa at 20.0 °C
l) Vapour density	: No data available
m) Relative density	: 1.159 g/cm ³
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 pressure
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
Remarks: (IUCLID)

Chemical Oxygen Demand (COD) 2,070 mg/g
Remarks: (IUCLID)

Theoretical oxygen Demand 2,200 mg/g
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	ACETONE	ACETONE	Acetone

	Shipping name			
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.

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