



Acetone

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name	Acetone
Chemical Name	Acetone
Chemical Formula	C ₃ H ₆ O
CAS No.	67-64-1
EC No.	200-662-2
REACH Registration No.	01-2119471330-49-XXXX

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

Identified Use(s)	PC21 Laboratory chemicals
Uses Advised Against	Not known.

1.3 Details of the supplier of the safety data sheet

Manufacturer	
Company Identification	Rathburn Chemicals Ltd
Address of Manufacturer	6 Caberston Road Walkerburn Peeblesshire Scotland EH43 6AU
Postal code	
Telephone:	00 (44) (0) 1 896 870 651
Fax	Not known.
E-mail	sales@rathburn.co.uk
Office hours	09:00 - 17:00

Supplier	
Company Identification	Rathburn Chemicals Ltd
Address of Supplier	6 Caberston Road Walkerburn Peeblesshire Scotland EH43 6AU
Postal code	
Telephone:	00 (44) (0) 1 896 870 651
Fax	Not known.
E-mail	sales@rathburn.co.uk
Office hours	09:00 - 17:00

1.4 Emergency telephone number

Emergency Phone No.	00 (44) (0) 1 896 870 651 or 00 (44) (0) 7807 520501
Contact	Roddy Stoddart

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008 (CLP)	Flam. Liq. 2 :Highly flammable liquid and vapour. Eye Irrit. 2 :Causes serious eye irritation. STOT SE 3 :May cause drowsiness or dizziness.
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2.2 Label elements

Product Name	According to Regulation (EC) No. 1272/2008 (CLP) Acetone
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Hazard Pictogram(s)



GHS02



GHS07

Signal Word(s)

Danger

Hazard Statement(s)

H225: Highly flammable liquid and vapour.
H319: Causes serious eye irritation.



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H336: May cause drowsiness or dizziness.

EUH066: Repeated exposure may cause skin dryness or cracking.

Precautionary Statement(s)

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

P261: Avoid breathing vapours.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

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

P304+P340: IF INHALED: Remove person to fresh air and keep 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.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

This substance/mixture contains no components identified as having endocrine disrupting properties at levels of 0.1% or higher.

2.4 Additional Information

For full text of H/P Statements see section 16.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

HAZARDOUS INGREDIENT(S)	CAS No.	EC No. / REACH Registration No.	%W/W	Hazard Statement(s)	Hazard Pictogram(s)
Acetone	67-64-1	200-662-2 01-2119471330-49-XXXX	> 99	Flam. Liq. 2 H225 Eye Irrit. 2 H319 STOT SE 3 H336	GHS02 GHS07

Contains no non-classified vPvB substances or substances with a Union workplace exposure limit.

For full text of H/P Statements see section 16.

3.2 Mixtures

Not applicable.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation

Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE/doctor if you feel unwell.

Skin Contact

Take off immediately all contaminated clothing. Rinse skin with water.

Eye Contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

Wash out mouth with water.

4.2 Most important symptoms and effects, both acute and delayed

Causes serious eye irritation. May cause drowsiness or dizziness.

4.3 Indication of any immediate medical attention and special treatment needed

Unlikely to be required but if necessary treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing media

Use water spray, foam, dry powder or CO₂ to extinguish.

Unsuitable extinguishing media

Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Highly flammable liquid and vapour. Decomposes in a fire giving off toxic fumes: Carbon monoxide, Carbon dioxide .



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5.3 Advice for firefighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. If it is safe to do so, containers should be removed from fire area because they are likely to rupture under fire conditions.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Ensure full personal protection (including respiratory protection) during removal of spillages.

6.2 Environmental precautions

Do not allow to enter drains, sewers or watercourses.

6.3 Methods and material for containment and cleaning up

Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal.

6.4 Reference to other sections

See Also Section 8, 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use non-sparking tools. Take action to prevent static discharges. Use only outdoors or in a well-ventilated area. Provide adequate ventilation. Avoid breathing vapours. Avoid contact with eyes. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands and exposed skin thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Store locked up. Keep cool.

Storage temperature

Ambient.

Storage life

Stable under normal conditions.

Incompatible materials

Strong oxidising agents, Alkalis, Amines .

7.3 Specific end use(s)

PC21 Laboratory chemicals

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits

Occupational Exposure Limits						
SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note
Acetone	67-64-1	500	1210	1500	3620	

Region: United Kingdom
Source: UK Workplace Exposure Limits EH40/2005 (Fourth edition, published 2020)

Remark: Notes

Acetone			
DNEL / DMEL	Oral	Inhalation	Dermal
Industry - Long Term - Local effects			
Industry - Long Term - Systemic effects		1210 mg/m ³	186 mg/kg bw/day
Industry - Short term - Local effects		2420 mg/m ³	
Industry - Short term - Systemic effects			
Consumer - Long Term - Local effects			



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Consumer - Long Term - Systemic effects	62 mg/kg bw/day	200 mg/m ³	62 mg/kg bw/day
Consumer - Short term - Local effects			
Consumer - Short term - Systemic effects			

Acetone	
Environment	PNEC
Aquatic Compartment (including sediment)	Fresh water : 10.6 mg/l , Intermittent releases (Fresh water) : 21 mg/l , Marine water : 1.06 mg/l , Sewage treatment : 100 mg/l , Sediment (Fresh water) : 30.4 mg/kg dw , Sediment (Marine water) : 3.04 mg/kg dw
Terrestrial Compartment	29.5 mg/kg dw
Atmospheric Compartment	

8.2 Exposure controls

8.2.1. Appropriate engineering controls Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Ensure adequate ventilation. A washing facility/water for eye and skin cleaning purposes should be present.

8.2.2. Personal protection equipment



Eye Protection

Wear eye protection with side protection (EN ISO 16321-1).



Skin protection

Wear protective clothing and gloves: Impervious gloves (EN 374).
Recommended: Butyl rubber.
thickness of coating : ≥ 0.5 mm
Breakthrough time of the glove material: refer to the information provided by the gloves' producer.



Respiratory protection

Normally no personal respiratory protection is necessary. Wear suitable respiratory protective equipment if exposure to high levels of material are likely. Where an air-purifying respirator is suitable, use EN371 type AX.



Thermal hazards

Not applicable.

8.2.3. Environmental Exposure Controls Do not allow to enter drains, sewers or watercourses.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Liquid.
Colour	Colourless.
Odour	Aromatic odour.
Melting point/freezing point	-94°C
Boiling point or initial boiling point and boiling range	56°C
Flammability	Highly flammable liquid and vapour.
Lower and upper explosion limit	Lower 2.1 vol%, Upper 13 vol%
Flash Point	-20°C
Auto-ignition temperature	465°C
Decomposition Temperature	Not known.
pH	5-6 @ 20°C
Kinematic Viscosity	0.32 mPa•s @ 20°C
Solubility	Solubility (Water) : Completely soluble in water. Solubility (Other) : Not known.
Partition coefficient n-octanol/water (log value)	-0.24 @ 20°C



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Vapour pressure 247 mbar @ 20°C
 Density and/or relative density Density (g/ml) : 0.791 g/ml
 Relative vapour density Not known.
 Particle characteristics Not known.

9.2 Other information

None.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions.

10.2 Chemical Stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid

Avoid friction, sparks, or other means of ignition.

10.5 Incompatible materials

Strong oxidising agents, Alkalis, Amines .

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity - Ingestion Not classified.
 Low oral toxicity.
 LD50 (rat) = 5800 mg/kg

Acute toxicity - Skin Contact Not classified.
 Low acute toxicity.
 LD50 (rabbit) = 7400 mg/kg

Acute toxicity - Inhalation Not classified.
 Low acute toxicity.
 LC50 (rat) = 76 mg/l

Skin corrosion/irritation Not classified.

Serious eye damage/irritation Causes serious eye irritation.
 Acetone was assigned to grade 5 (grading system with a range of 1 to 10): 0.005 ml acetone yielded a score not over 5.0 (scoring system with a maximal score of 20) and 0.02 ml yielded a score over 5.0.

Skin sensitization data Not classified.
 R66: Repeated exposure may cause skin dryness or cracking.

Respiratory sensitization data Not classified.

Germ cell mutagenicity Not classified.

Carcinogenicity Not classified.

Reproductive toxicity Not classified.

Lactation Not classified.

STOT - single exposure May cause drowsiness or dizziness.
 NOAEC = 22500 mg/m³

STOT - repeated exposure Not classified.

Aspiration hazard Not classified.

11.2 Information on other hazards

Not known.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity - Aquatic invertebrates Low toxicity to invertebrates.
 Fresh water : LC50 (Daphnia pulex) (48 hour) = 8800 mg/l
 Marine water : LC50 (Artemia salina) (24 hour(s)) = 2100 mg/l

Toxicity - Fish Low toxicity to fish.
 Fresh water : LC50 (Rainbow trout) (96 hour) = 5540 mg/l
 Marine water : LC50 (Alburnus alburnus) (96 hour) = 11000 mg/l



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Toxicity - Algae	Low toxicity to algae. Fresh water : NOEC (Microcystis aeruginosa) (8 days) = 530 mg/l Marine water : NOEC (Prorocentrum minimum) (96 hour) = 430 mg/l
Toxicity - Sediment Compartment	Not classified.
Toxicity - Terrestrial Compartment	Not classified.
12.2 Persistence and degradability	The product is readily biodegradable.
12.3 Bioaccumulative potential	The substance has low potential for bioaccumulation. Log Pow -0.24 @ 20°C
12.4 Mobility in soil	Soluble in water. The substance is predicted to have high mobility in soil.
12.5 Results of PBT and vPvB assessment	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
12.6 Endocrine disrupting properties	This substance/mixture contains no components identified as having endocrine disrupting properties at levels of 0.1% or higher.
12.7 Other adverse effects	Not known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods	Dispose of this material and its container as hazardous waste.
13.2 Additional Information	Disposal should be in accordance with local, state or national legislation.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number or ID number	
UN No.	1090
14.2 UN proper shipping name	
UN proper shipping name	ACETONE
14.3 Transport hazard class(es)	
ADR/RID	
ADR/RID Class	3
ADR Classification Code	F1
Special Provisions	
Limited Quantities	1 L
Excepted Quantities	E2
Emergency Action Code	•2YE
Packing Instructions for Packages	P001 IBC02 R001
Special Packing Provisions for Packages	
Mixed Packing Instructions for Packages	MP19
Instructions for Portable Tanks	T4
Special Provisions for Portable Tanks	TP1
Tank Code for Tanks	LGBF
Special Provisions for Tanks	
Vehicle for Tank Carriage	FL
ADR Transport Category	2
Tunnel Restriction Code	D/E
Special Provisions for Carriage - Packages	
Special Provisions for Carriage - Bulk	
Special Provisions for Carriage - Loading, Unloading and Handling	
Special Provisions for Carriage - Operation	S2 S20
ADR HIN	33
IMDG	
IMDG Class	3
Special Provisions	



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Limited Quantities	1 L
Excepted Quantities	E2
Mixed Packing Instructions for Packages	P001 IBC02
Special Packing Provisions for Packages	
Instructions for Portable Tanks	T4
Special Provisions for Portable Tanks	TP1
IMDG EMS	F-E, S-D
Stowage and Handling Segregation	Category E
Marine Pollutant	Not classified as a Marine Pollutant.
ICAO/IATA	
ICAO/IATA Class	3
Excepted Quantities	E2
Passenger and Cargo Aircraft Limited Quantities Packing Instructions	Y341
Passenger and Cargo Aircraft Limited Quantities Max net Qty	1L
Passenger and Cargo Aircraft Packing Instructions	353
Passenger and Cargo Aircraft Max net Qty	5L
Cargo Aircraft Packing Instructions	364
Cargo Aircraft Max net Qty	60L
Special Provisions	
Emergency Response Guidebook (ERG) Code	3H
Labels	
Labels	3



14.4 Packing group

Packing group II

14.5 Environmental hazards

Environmental hazards Not classified as a Marine Pollutant.

14.6 Special precautions for user

Special precautions for user Not known.

14.7 Maritime transport in bulk according to IMO instruments

No information available

SECTION 15: REGULATORY INFORMATION

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

European Regulations - Authorisations and/or Restrictions On Use

Candidate List of Substances of Very High Concern for Authorisation Not listed

REACH: ANNEX XIV list of substances subject to authorisation Not listed

REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles Acetone (67-64-1) (Entry 3, Entry 40, Entry 75)

Community Rolling Action Plan (CoRAP) Not listed

Seveso Directive

P5(a,b,c) Flammable liquids Category 2 or 3

Regulation (EU) N° 2019/1021 of the European Parliament and of the Council on persistent organic pollutants Not listed

Regulation (EC) N° 1005/2009 on substances that deplete the ozone layer Not listed

Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of Not listed



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hazardous chemicals

National regulations

Wassergefährdungsklasse (Germany)
15.2 Chemical Safety Assessment

WGK number 1 (slightly hazardous to water)

Not required since the substance is supplied at less than 10 tonnes per annum.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16

LEGEND

Hazard Pictogram(s)



GHS02



GHS07

Hazard classification

Flam. Liq. 2 : Flammable liquid, Category 2
Eye Irrit. 2 : Serious eye damage/irritation, Category 2
STOT SE 3 : Specific target organ toxicity — single exposure, Category 3

Hazard Statement(s)

H225: Highly flammable liquid and vapour.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
EUH066: Repeated exposure may cause skin dryness or cracking.

Precautionary Statement(s)

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233: Keep container tightly closed.
P240: Ground and bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting/equipment.
P242: Use non-sparking tools.
P243: Take action to prevent static discharges.
P261: Avoid breathing vapours.
P264: Wash hands and exposed skin thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304+P340: IF INHALED: Remove person to fresh air and keep 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 CENTRE/doctor if you feel unwell.
P337+P313: If eye irritation persists: Get medical advice/attention.
P370+P378: In case of fire: Use water spray, foam, dry powder or CO2 to extinguish.
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.

Acronyms

P501: Dispose of contents in accordance with local, state or national legislation.
ADN : European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE : Acute Toxicity Estimate
CAS : Chemical Abstracts Service
CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of

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substances and mixtures

DNEL : Derived No Effect Level

EC : European Community

EINECS : European Inventory of Existing Commercial Chemical Substances

IATA : International Air Transport Association

IBC : Intermediate Bulk Container

ICAO : International Civil Aviation Organization

IMDG : International Maritime Dangerous Goods

LTEL : Long term exposure limit

PBT : Persistent, Bioaccumulative and Toxic

PNEC : Predicted No Effect Concentration

REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals

RID : Regulations concerning the International Carriage of Dangerous Goods by Rail

STEL : Short term exposure limit

STOT : Specific Target Organ Toxicity

UN : United Nations

vPvB : very Persistent and very Bioaccumulative

Key literature references and sources for Regulation (EC) No. 1272/2008 (CLP)

data used to compile the SDS

Training Advice

Disclaimers

Regular safety training as appropriate

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