

Safety Data Sheet
according to 1907/2006/EC, Article 31



Revision: 03.08.2009

Printing date 03.08.2009

1 Identification of substance**Product details**

Trade name: **Acetone**
Stock number: 22928
Manufacturer/Supplier: Alfa Aesar
 Shore Road
 Port of Heysham Industrial Park
 Heysham Lancashire LA3 2XY
 United Kingdom
 Office Tel: +44 (0) 1524 850506
Informing department: Product safety department.
Emergency information: Call Carechem 24 at +44 (0) 1865 407333

2 Hazards identification**Hazard designation:**

  Xi Irritant
F Highly flammable

Information pertaining to particular dangers for man and environment

R 11 Highly flammable.
 R 36 Irritating to eyes.
 R 66 Repeated exposure may cause skin dryness or cracking.
 R 67 Vapours may cause drowsiness and dizziness.

GHS label elements

 **Danger**

H225 - Highly flammable liquid and vapour.

 **Warning**

H319+EUH066 - Causes serious eye irritation. Repeated exposure may cause skin dryness or cracking.

H336 - May cause drowsiness or dizziness.

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/vapours/spray.
 P264 Wash thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.

Response:

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

P337+P313 If eye irritation persists: Get medical advice/attention.

P370+P378 In case of fire: Use for extinction: CO₂, powder or water spray.

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 in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients**Chemical characterization:**

Designation: (CAS#) Acetone (CAS# 67-64-1)
Identification number(s):
EINECS Number: 200-662-2
Index number: 606-001-00-8

4 First aid measures**After inhalation**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact

Seek immediate medical advice.
 Instantly wash with water and soap and rinse thoroughly.

After eye contact

Seek immediate medical advice.
 Rinse opened eye for several minutes under running water. Then consult doctor.

After swallowing

Seek immediate medical advice.

5 Fire fighting measures**Suitable extinguishing agents**

CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

For safety reasons unsuitable extinguishing agents

Water with a full water jet.

Special hazards caused by the material, its products of combustion or flue gases:

Can be released in case of fire:
 Carbon monoxide and carbon dioxide
 Wear self-contained breathing apparatus.
 Wear full protective suit.

Protective equipment:**6 Accidental release measures****Person-related safety precautions:**

Wear protective equipment. Keep unprotected persons away.
 Ensure adequate ventilation

Measures for environmental protection:

Keep away from ignition sources
 Dilute with much water.

Measures for cleaning/collecting:

Do not allow material to be released to the environment without proper governmental permits.
 Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 Ensure adequate ventilation.
 Keep away from ignition sources.

Additional information:

See Section 7 for information on safe handling
 See section 8 for information on personal protection equipment.
 See Section 13 for information on disposal.

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7 Handling and storage

Handling Information for safe handling:	Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation/exhaustion at the workplace.
Information about protection against explosions and fires:	Keep ignition sources away - Do not smoke. Protect against electrostatic charges. Fumes can combine with air to form an explosive mixture.
Storage Requirements to be met by storerooms and containers:	Store in cool location.
Information about storage in one common storage facility:	Store away from oxidizing agents.
Further information about storage conditions:	Keep container tightly sealed. Store in cool, dry conditions in well sealed containers.

8 Exposure controls and personal protection

Additional information about design of technical systems:	Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.
Components with critical values that require monitoring at the workplace:	Acetone ppm ACGIH TLV 500; 750-STEL Not classified as a human carcinogen Austria MAK 750 Belgium TWA 750; 1000-STEL Denmark TWA 250 Finland TWA 500; 625-STEL France VME 750 Germany MAK 500 Hungary TWA 600 mg/m ³ ; 1200 mg/m ³ -STEL Japan OEL 200 Korea TLV 500; 750-STEL Netherlands MAC-TGG 750 Norway TWA 125 Poland TWA 600 mg/m ³ ; 1800 mg/m ³ -STEL Russia TWA 200; 200-STEL Sweden NGV 250; 500-KTV Switzerland MAK-W 500; 1000-STEL United Kingdom TWA 750; 1500-STEL USA PEL 1000 No data
Additional information:	
Personal protective equipment	
General protective and hygienic measures	The usual precautionary measures should be adhered to in handling the chemicals. Keep away from foodstuffs, beverages and food. Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work. Do not inhale gases / fumes / aerosols.
Breathing equipment:	Use breathing protection in case of insufficient ventilation. Use breathing protection with high concentrations.
Eye protection:	Safety glasses Face protection
Body protection:	Protective work clothing.

9 Physical and chemical properties:

General Information	
Form:	Liquid
Colour:	Colourless
Smell:	Acetone-like
Change in condition	
Melting point/Melting range:	-94°C
Boiling point/Boiling range:	56°C
Sublimation temperature / start:	Not determined
Flash point:	-17°C
Ignition temperature:	465°C
Decomposition temperature:	Not determined
Critical values for explosion:	
Lower:	2.6 Vol %
Upper:	13 Vol %
Steam pressure at 20°C:	247 hPa
Density at 20°C	0.791 g/cm ³
Solubility in / Miscibility with Water:	Fully miscible
Viscosity: dynamic at 20°C:	0.32 mPas

10 Stability and reactivity

Thermal decomposition / conditions to be avoided:	No decomposition if used and stored according to specifications.
Materials to be avoided:	Oxidizing agents
Dangerous reactions:	Reacts violently with nitric acid (HNO ₃). No dangerous reactions known
Dangerous products of decomposition:	Carbon monoxide and carbon dioxide

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11 Toxicological information**Acute toxicity:****LD/LC50 values that are relevant for classification:**

Oral	LD50	5800 mg/kg (rat)
Inhalative	LC50/8H	50100 mg/m ³ /8H (rat)
Irritation of skin	mild	500 mg/24H (rabbit)
Irritation of eyes	moderate	20 mg/24H (rabbit)

Primary irritant effect:**on the skin:**

Causes mild irritant effect.

on the eye:

Irritant effect.

Sensitization:

No sensitizing effect known.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

12 Ecological information:**General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

Do not allow material to be released to the environment without proper governmental permits.

13 Disposal considerations**Product:****Recommendation**

Consult state, local or national regulations for proper disposal.

Hand over to disposers of hazardous waste.

Must be specially treated under adherence to official regulations.

Uncleaned packagings:**Recommendation:**

Disposal must be made according to official regulations.

Recommended cleaning agent:

Water, if necessary with cleaning agent.

14 Transport information**Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)****ADR/RID-GGVS/E Class:** 3 (F1) Flammable liquids.**Kemler Number:** 33**UN-Number:** 1090**Packaging group:** II**Label:** 3**Designation of goods:** 1090 ACETONE**Limited quantities (LQ)****Transport category:** LQ4**Tunnel restriction code****2****D/E****Maritime transport IMDG/GGVSea:****IMDG/GGVSea Class:** 3**UN Number:** 1090**Label:** 3**Packaging group:** II**EMS Number:** F-E,S-D**Marine pollutant:** No**Correct technical name:** ACETONE**Air transport ICAO-TI and IATA-DGR:****ICAO/IATA Class:** 3**UN/ID Number:** 1090**Label:** 3**Packaging group:** II**Correct technical name:** ACETONE**UN "Model Regulation":**

UN1090, ACETONE, 3, II

15 Regulatory information**Designation according to EC guidelines:****Code letter and hazard designation of product:**

 Xi Irritant
F Highly flammable
Risk phrases:

11 Highly flammable.

36 Irritating to eyes.

66 Repeated exposure may cause skin dryness or cracking.

67 Vapours may cause drowsiness and dizziness.

Safety phrases:

9 Keep container in a well-ventilated place.

16 Keep away from sources of ignition - No smoking.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

National regulations**Information about limitation of use:**

Employment restrictions concerning young persons must be observed.

For use only by technically qualified individuals.

Water hazard class:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

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16 Other information:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing data specification sheet: Health, Safety and Environmental Department.

Contact: Zachariah Holt

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)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

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