



Acetone

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

Trade name: Acetone (Finland: Asetoni)
Intended use: Raw material in chemical industry.
Manufacturer: Borealis Polymers Oy, P.O.Box 330, FIN-06101 PORVOO, Finland.
Telephone: + 358-(0)9-394 900
Emergency Telephone: + 358-(0)10-458 2267
Poison Information Center, phone +358-(0)9-471977 & +358-(0)9-4711
Neste Oil Oyj, Porvoo refinery, fire department, phone +358-(0)10 458 2267
Myrkytystietokeskus, HYKS, PL 360, FIN-00290 HYKS

2. Composition/information on ingredients

Components	EC No	CAS No	w/w%	Classification: R-phrase
Acetone	200-662-2	67-64-1	> 99	F; R11, Xi; R36; R66, R67

For the full text of the R phrases mentioned in this section, see chapter 16.

3. Hazards identification

Health: Xi - Irritant. R36; Irritating to eyes. R66; Repeated exposure may cause skin dryness or cracking. R67; Vapours may cause drowsiness and dizziness.

May be absorbed into the body by inhalation and through the skin. Repeated exposure may result in irreversible damage to the central nervous system (solvent-induced neurotoxicity). Contact with skin may cause irritation. Prolonged skin contact may defat the skin and produce dermatitis.

Fire: F - Highly flammable. R11; Highly flammable.

Vapours may form explosive mixtures with air. High risk of fire in case of leakage.

Environment: Not classified as dangerous. The product evaporates readily. The product is soluble in water. Readily biodegradable.

4. First-aid measures

General: Effects of excessive exposures may include: confusion, headache, dizziness, drowsiness, and unconsciousness.

Inhalation: Remove from exposure. Keep warm and at rest and provide fresh air. In case of breathing difficulties, apply mouth to mouth respiration. Seek medical advice immediately.

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

Skin contact: Take off all contaminated clothing immediately. Skin: Wash off immediately with soap and plenty of water. Obtain medical attention.

Ingestion: Rinse mouth. Seek medical advice immediately.

Borealis A/S

Parallevej 16,
DK-2800 Kongens Lyngby (Denmark)
Telephone: +45 45 96 60 00
Fax: +45 45 96 61 23
www.borealisgroup.com





Acetone

5. Fire-fighting measures

Suitable extinguishing media: Dry powder, carbon dioxide, foam and water mist.

Special exposure hazard in a fire: Incomplete combustion may produce: Carbon monoxide.

Protective equipment for fire-fighters: Wear self-contained breathing apparatus and protective suit.

Advice: Observe the risk of explosion. Vapours may form explosive mixtures with air. Remove all sources of ignition. Cool containers / tanks with spray water.

6. Accidental release measures

Personal precautions: Use personal protective equipment. See chapter 8.

Environmental precautions: Prevent product from entering environment and drains. If major spillage occurs, contact the proper local authorities.

Methods for cleaning up: Collect mechanically and dispose in suitable container for disposal. Small amounts: Soak up with inert absorbent material. Ensure adequate ventilation, especially in confined areas.

Further information: Keep people away from and upwind of spill/leak. Attempt to stop leakage without personal risk. High risk of fire in case of leakage. Remove all sources of ignition. The product evaporates readily. Vapours are heavier than air and may spread along floors.

7. Handling and storage

Handling: Ensure adequate ventilation. Refill and handle product only in closed system. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapour or mist.

Storage: Keep container in a well-ventilated place. Keep product and empty container away from heat and sources of ignition. Keep tightly closed. Keep away from incompatible materials. See chapter 10.

8. Exposure controls/ personal protection

Exposure Limits:

Acetone: CAS-No. 67-64-1, 500 ppm = 1200 mg/m³

EC 500 ppm (8 h), Finland: 500 ppm (8 h), Sweden 250 ppm (8 h), Germany 500 ppm (8 h),

The Netherlands 500 ppm (8 h)

Other information on limit values:

Finland HTP 2005. Germany: Acetone in urine: 80 mg/l, end of shift. (BAT 2001)

Occupational exposure controls: Avoid and prevent all spillage, contact and exposure.

Respiratory protection: In case of insufficient ventilation: Respirator with A2 or ABEK filter or self-contained breathing apparatus.

Hand protection: Wear suitable gloves: thick PVC, butyl-rubber or polyethylene-polyvinyl alcohol or Teflon. Breakthrough time >480 min.; butyl-rubber or polyethylene-polyvinyl alcohol or Teflon.

Eye protection: Safety goggles or face-shield.

Skin and body protection: Wear suitable protective clothing and rubber boots.

Borealis A/S

Parallevej 16,

DK-2800 Kongens Lyngby (Denmark)

Telephone: +45 45 96 60 00

Fax: +45 45 96 61 23

www.borealisgroup.com





Acetone

9. Physical and chemical properties

Appearance: Colourless, liquid, odour characteristic.

Boiling point: 56 °C

Flash point: -18 °C c.c.

Autoignition temperature: 465 °C

Density: 800 kg/m³

Partition coefficient (n-octanol/water); log Pow = -0.24

Water solubility: Completely soluble. Miscible with most organic solvents.

Melting point: - 94 °C

Explosive limits in air: 2.2 - 13 vol.%

Vapour pressure: 24 kPa at 20 °C

Relative vapour density: 2.0 (air= 1)

10. Stability and reactivity

Conditions to avoid: Keep away from heat and sources of ignition.

Materials to avoid: Incompatible with oxidizing agents; peroxides, nitric acid, chlorates, perchlorates, permanganates.

Hazardous decomposition products: In case of fire hazardous decomposition products may be produced such as: Carbon monoxide (CO), carbon dioxide (CO₂).

11. Toxicological information

Acute toxicity: Acetone: May be absorbed into the body by inhalation and through the skin.

LD50/oral/rat = 7400 mg/kg.

Man: Inhalation of vapours may cause mild irritation to the mucous membrane. > 300 ppm

Man: Symptoms of poisoning > 800 ppm/60 min.

Effects of excessive exposures may include: confusion, headache, dizziness, drowsiness, and unconsciousness.

Irritation and corrosion: Irritating to eyes. Contact with skin may cause irritation.

Subacute, subchronic and prolonged toxicity: Repeated exposure may result in irreversible damage to the central nervous system (solvent-induced neurotoxicity). Liver and kidney injuries may occur. The substance may cause effects on the blood & bone marrow. Prolonged skin contact may defat the skin and produce dermatitis.

12. Ecological information

Classification: Not classified as dangerous.

Ecotoxicity effects: Should not be released into the environment. No known hazard.

Toxicity to fish; LC50 (24h-14d) ≥ 5000 mg/l. Toxicity to daphnia; LC50 (48h) = 12700 mg/l (Daphnia magna)

Toxicity to algae; LOEC ≥ 530 mg/l.

Mobility: The product evaporates readily. The product is soluble in water.

Persistence and degradability: Readily biodegradable.

Chemical degradation: No information available.

Bioaccumulative potential: Not probable: Partition coefficient (n-octanol/water); log Pow = -0.24

13. Disposal considerations

Dispose of as hazardous waste in accordance with local and national regulations.

EC waste code: 07 01 04

Borealis A/S

Parallevej 16,

DK-2800 Kongens Lyngby (Denmark)

Telephone: +45 45 96 60 00

Fax: +45 45 96 61 23

www.borealisgroup.com





Acetone

14. Transport information

Land transport: Proper Shipping Name: ACETONE

UN No: 1090 Class: 3 Labels: 3 Packing group: II



Sea transport: Proper Shipping Name: ACETONE

UN No: 1090 Class: 3 Labels: 3 EmS No: F-E, S-D Marine pollutant: no

15. Regulatory information

Classification and labelling according to Annex 1, Directive 67/548/EEC.

LABEL:

 Irritant	<p>Product name: Acetone</p> <p>Ingredients:</p> <p>Acetone (EC No 200-662-2) 100 wt%</p>	 Highly flammable
---	--	---

- R11 Highly flammable.
 R36 Irritating to eyes.
 R66 Repeated exposure may cause skin dryness or cracking.
 R67 Vapours may cause drowsiness and dizziness.
- S9 Keep container in a well-ventilated place.
 S16 Keep away from sources of ignition - No smoking.
 S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Manufacturer: BOREALIS POLYMERS OY, P.O.Box 330, FIN-06101 Porvoo, Finland.
 Telephone: +358-(0)9-394 900

EC label

16. Other information

Text of R phrases mentioned in chapters 2 and 3:

- R11 Highly flammable.
 R36 Irritating to eyes.
 R66 Repeated exposure may cause skin dryness or cracking.
 R67 Vapours may cause drowsiness and dizziness.

Changes: This Safety Data Sheet contains changes from the previous edition under the following headings: 2, 3, 5, 8, 12, 14, 16.

Issuer: Borealis Group HSE / Pekka Korttesmaa & Arvo Kulo. According to Directive 91/155/EEC with amendments.

Borealis A/S

Parallevej 16,
 DK-2800 Kongens Lyngby (Denmark)
 Telephone: +45 45 96 60 00
 Fax: +45 45 96 61 23
www.borealisgroup.com





Acetone

Literary reference:

International Chemical Safety Card, Acetone, April 1994: (www.inchem.org/pages/icsc.html).
Environment Guide 71; Environmental properties of chemicals, Finnish Environment Institute, Helsinki 2000.

Disclaimer:

The information contained herein is to our knowledge accurate and reliable as of the date of publication and is only intended to describe health, safety and environment aspects of the product. It is the customer's responsibility to inspect and test our products in order to satisfy himself as to the suitability of the products for the customer's particular purpose. The customer is also responsible for the appropriate, safe and legal use, processing and handling of our products.

Insofar as products supplied by Borealis or its subsidiary companies are used in conjunction with third party materials, it is the responsibility of the customer to obtain all necessary information relating to the third party materials and ensure that Borealis' products when used together with these materials are suitable for the customer's particular purpose. No liability can be accepted in respect of the use of Borealis' products in conjunction with other materials. The information contained herein relates exclusively to our products when not used in conjunction with any third party materials.

Borealis A/S

Parallevej 16,
DK-2800 Kongens Lyngby (Denmark)
Telephone: +45 45 96 60 00
Fax: +45 45 96 61 23
www.borealisgroup.com