

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Acetone

Version 9

Revision Date 04.01.2010

Print Date 04.01.2010

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product information

Trade name : Acetone

Use of the Substance/Mixture : Raw material in chemical industry

Manufacturer : Borealis Polymers Oy
P.O.Box 330, FI-06101 Porvoo, Finland
Telephone: +358 9 394900
Emergency telephone:
+358 9 39493622 Shift supervisor, Phenol (24h)
+358 10 4582267 Fire department, Kilpilahti industrial area (24h)
+358 9 471977 & +358 9 4711 Poison Information Center, Finland (24h)

Supplier : Borealis AG
Wagramerstrasse 17-19, 1220 Vienna, Austria
Telephone: +43 1 22400 0
E-mail address: SDS@borealisgroup.com

2. HAZARDS IDENTIFICATION

Risk advice to man and the environment

Highly flammable.
Irritating to eyes.
Repeated exposure may cause skin dryness or cracking.
Vapours may cause drowsiness and dizziness.

Other hazards which do not result in classification

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.
Vapours may form explosive mixtures with air.
High risk of fire in case of leakage.
The product evaporates readily.
The product is soluble in water.
Readily biodegradable

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Acetone

Version 9

Revision Date 04.01.2010

Print Date 04.01.2010

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS-No. : 67-64-1
Index-No. : 606-001-00-8
EINECS-No. : 200-662-2

Hazardous components

Chemical Name	CAS-No.	EC-No. / Registration number	Classification	Concentration [%]
acetone	67-64-1	200-662-2	F; R11 Xi; R36 R66 R67	>= 99

For the full text of the R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

General advice : Effects of excessive exposures may include:
Disorientation
Dizziness
Drowsiness
Headache
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.

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

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

Ingestion : Rinse mouth.
Seek medical advice immediately.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Acetone

Version 9

Revision Date 04.01.2010

Print Date 04.01.2010

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Dry powder, carbon dioxide, foam and water mist.
- Specific hazards during fire fighting : Incomplete combustion may produce:
Carbon monoxide
- Special protective equipment for fire-fighters : Wear self-contained breathing apparatus and protective suit.
- Further information : Observe the risk of explosion.
Vapours may form explosive mixtures with air.
Remove all sources of ignition.
Cool containers / tanks with water spray.

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.
- Additional advice : 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

- Advice on safe 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.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Acetone

Version 9

Revision Date 04.01.2010

Print Date 04.01.2010

Avoid contact with skin, eyes and clothing.
Avoid inhalation of vapour or mist.

Storage

Requirements for storage areas and containers : 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

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
acetone	67-64-1	TWA	500 ppm 1.210 mg/m ³	2000-06-16	2000/39/EC
Further information	:	Indicative			
		HTP-arvot 8h	500 ppm 1.200 mg/m ³	2005-02-11	FI OEL
		HTP-arvot 15 min	630 ppm 1.500 mg/m ³	2005-02-11	FI OEL

Personal protective equipment

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Acetone

Version 9

Revision Date 04.01.2010

Print Date 04.01.2010

Break through time: > 480 min

: PE/EVAL (4H)
Break through time: > 480 min

: Teflon
Break through time: > 480 min

Eye protection : Wear goggles and if needed face-shield.

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

Hygiene measures : Avoid and prevent all spillage, contact and exposure.

Environmental exposure controls

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form : liquid
Colour : colourless
Odour : characteristic

Safety data

Flash point : -18 °C
Ignition temperature : 465 °C
Lower explosion limit : 2,2 %(V)
Upper explosion limit : 13 %(V)
Melting point : -94 °C
Boiling point : 56 °C
Vapour pressure : 240 hPa
at 20 °C

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Acetone

Version 9

Revision Date 04.01.2010

Print Date 04.01.2010

Density : 800 kg/m³

Water solubility : Note: completely soluble

Partition coefficient: n-octanol/water : log Pow: -0,24

Solubility in other solvents : Medium: Fat solubility
Note: miscible with most organic solvents

Relative vapour density : 2,0

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 : Carbon monoxide
Carbon dioxide (CO₂)

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50: 5.800 mg/kg
Species: rat

Acute inhalation toxicity : Effects: > 300 ppm
Species: human
Remarks: Inhalation of vapours may cause mild irritation to the mucous membrane.

: Effects: 1.930 mg/l
> 800 ppm
Exposure time: 60 min
Species: human
Remarks: Symptoms of poisoning.

: Effects: 9.659 mg/l
> 4000 ppm

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Acetone

Version 9

Revision Date 04.01.2010

Print Date 04.01.2010

Exposure time: 60 min
Species: human
Remarks: Severe toxic effects.

Skin irritation : Remarks: Contact with skin may cause irritation.

Eye irritation : Remarks: Irritating to eyes.

Repeated dose 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 and bone marrow. Prolonged skin contact may defat the skin and produce dermatitis.

Further information : May be absorbed into the body by inhalation and through the skin.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to fish : LC50: > 5.000 mg/l
Exposure time: 14 d

Species: fish
Test substance: acetone-like

Toxicity to daphnia and other aquatic invertebrates. : LC50: 12.700 mg/l
Exposure time: 48 h
Species: Daphnia
Test substance: acetone-like

Toxicity to algae : LOEC: > 530 mg/l
Species: algae
Test substance: acetone-like

Elimination information (persistence and degradability)

Bioaccumulation : Remarks:

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Acetone

Version 9

Revision Date 04.01.2010

Print Date 04.01.2010

Bioaccumulation not expected.

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

Biodegradability : Remarks:
Readily biodegradable.

Additional ecological information : Not classified as dangerous.
Should not be released into the environment.

13. DISPOSAL CONSIDERATIONS

Product : Dispose of as hazardous waste in compliance with local and national regulations.

14. TRANSPORT INFORMATION

ADR

UN-Number : 1090
Description of the goods : ACETONE
Class : 3
Packing group : II
Hazard identification No : 33
Labels : 3

IMDG

UN-Number : 1090
Description of the goods : ACETONE
Class : 3
Packing group : II
EmS Number 1 : F-E
EmS Number 2 : S-D

Marine pollutant : no

15. REGULATORY INFORMATION

Labelling according to EC Directives

67/548/EEC

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Acetone

Version 9

Revision Date 04.01.2010

Print Date 04.01.2010

Symbol(s)

:



Highly flammable



Irritant

R-phrases(s)

:

R11
R36
R66

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

S-phrases(s)

:

S 9
S16

S26

S46

Keep container in a well-ventilated place.
Keep away from sources of ignition - No smoking.
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
If swallowed, seek medical advice immediately and show this container or label.

16. OTHER INFORMATION

Full text of R-phrases referred to under sections 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.

Further information

Issuer: : Borealis Group Product Stewardship / Andreas Ekholm & Arvo Kulo

Sources of key data used to compile the Safety Data Sheet : International Chemical Safety Card, Acetone, April 1994 (<http://www.inchem.org/documents/icsc/icsc/eics0087.htm>)
Environment Guide 71; Environmental properties of

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Acetone

Version 9

Revision Date 04.01.2010

Print Date 04.01.2010

chemicals, Finnish Environment Institute, Helsinki 2000

Disclaimer

To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication, however we do not assume any liability whatsoever for the accuracy and completeness of such information.

Borealis makes no warranties which extend beyond the description contained herein. Nothing herein shall constitute any warranty of merchantability or fitness for a particular purpose.

It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe and legal use, processing and handling of our products.

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.