

# Acetone

## Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 22/12/2016

Doc No: SDS-901.026/0

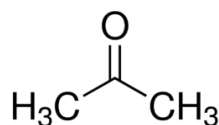


### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Substance  
Substance name : Acetone  
EC Index No : 606-001-00-8  
EC No : 200-662-2  
CAS No : 67-64-1

Type of product : Pure substance  
Formula : C<sub>3</sub>H<sub>6</sub>O  
Chemical structure :



Synonyms : 2-propanone / Acetone / acetone NF / acetone oil / AI3-01238 / beta-ketopropane / Caswell No.004 / chevron acetone / dimethyl formaldehyde / dimethyl ketone / dimethylketal / DMK (=dimethyl ketone) / keto propane / ketone propane / KTI acetone / methyl acetyl / methyl ketone / pyroacetic acid / pyroacetic ether / pyroacetic spirit

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

##### 1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemical  
Solvent  
Cleansing product  
Chemical raw material

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

ISOLAB GmbH  
Bahnhofstrasse 10, D-97877  
Wertheim - Germany  
T +49 93 42 912 355 - F +49 93 42 912 357  
[prodsafe@isolab.de](mailto:prodsafe@isolab.de)

#### 1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Germany	Giftnotruf der Charité CBF, Haus VIII (Wirtschaftsgebäude), UG	Hindenburgdamm 30 12203 Berlin	+49 30 19240	

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2 H225  
Eye Irrit. 2 H319  
STOT SE 3 H336

Full text of hazard classes and H-statements : see section 16

##### Adverse physicochemical, human health and environmental effects

No additional information available

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### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS02

GHS07

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H225 - Highly flammable liquid and vapour  
H319 - Causes serious eye irritation  
H336 - May cause drowsiness or dizziness

Precautionary statements (CLP) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
P240 - Ground/bond container and receiving equipment  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed

EUH-statements :

EUH066 - Repeated exposure may cause skin dryness or cracking

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name	Product identifier	%
Acetone	(CAS No) 67-64-1 (EC No) 200-662-2 (EC Index No) 606-001-00-8	95 - 99.5

Full text of H-statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general :

Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

First-aid measures after inhalation :

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

First-aid measures after skin contact :

Wash immediately with lots of water. Soap may be used. Do not apply (chemical) neutralizing agents. Remove clothing before washing. Take victim to a doctor if irritation persists.

First-aid measures after eye contact :

Rinse immediately with plenty of water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

First-aid measures after ingestion :

Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not give milk/oil to drink. Do not induce vomiting. Give activated charcoal. Call Poison Information Centre ([www.big.be/antigif.htm](http://www.big.be/antigif.htm)). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Doctor: gastric lavage.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries :

May cause drowsiness or dizziness.

Symptoms/injuries after inhalation :

EXPOSURE TO HIGH CONCENTRATIONS: Feeling of weakness. Irritation of the respiratory tract. Nausea. Vomiting. Headache. Central nervous system depression. Dizziness. Narcosis. Excited/restless. Drunkenness. Disturbed motor response. Respiratory difficulties. Disturbances of consciousness.

Symptoms/injuries after skin contact :

ON CONTINUOUS EXPOSURE/CONTACT: Dry skin. Cracking of the skin.

Symptoms/injuries after eye contact :

Irritation of the eye tissue.

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Symptoms/injuries after ingestion	: Dry/sore throat. Risk of aspiration pneumonia. Symptoms similar to those listed under inhalation. AFTER ABSORPTION OF HIGH QUANTITIES: Irritation of the gastric/intestinal mucosa. Change in the haemogramme/blood composition. Change in urine output. Affection of the renal tissue. Enlargement/affection of the liver.
Chronic symptoms	: ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Red skin. Skin rash/inflammation. Dry/sore throat. Headache. Nausea. Feeling of weakness. Loss of weight. Possible inflammation of the respiratory tract.

### 4.3. Indication of any immediate medical attention and special treatment needed

Obtain medical assistance.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Preferably: alcohol resistant foam. Water spray. Polyvalent foam. Alcohol-resistant foam. BC powder. Carbon dioxide.
Unsuitable extinguishing media	: Solid water jet ineffective as extinguishing medium.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: DIRECT FIRE HAZARD. Highly flammable. Gas/vapour flammable with air within explosion limits. INDIRECT FIRE HAZARD. May be ignited by sparks. Gas/vapour spreads at floor level: ignition hazard. Reactions involving a fire hazard: see "Reactivity Hazard".
Explosion hazard	: DIRECT EXPLOSION HAZARD. Gas/vapour explosive with air within explosion limits. INDIRECT EXPLOSION HAZARD. Heat may cause pressure rise in tanks/drums: explosion risk. may be ignited by sparks. Reactions with explosion hazards: see "Reactivity Hazard".
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

### 5.3. Advice for firefighters

Precautionary measures fire	: Keep cool. Protect from sunlight.
Firefighting instructions	: Cool tanks/drums with water spray/remove them into safety. Physical explosion risk: extinguish/cool from behind cover. Do not move the load if exposed to heat. After cooling: persistent risk of physical explosion.
Protection during firefighting	: Heat/fire exposure: compressed air/oxygen apparatus.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Protective equipment	: Gloves. Protective goggles. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus. See "Material-Handling" to select protective clothing.
Emergency procedures	: Keep upwind. Mark the danger area. Consider evacuation. Seal off low-lying areas. Close doors and windows of adjacent premises. Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment. Keep containers closed. Wash contaminated clothes.

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

Prevent spreading in sewers.

### 6.3. Methods and material for containment and cleaning up

For containment	: Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the liquid spill. Try to reduce evaporation. Measure the concentration of the explosive gas-air mixture. Dilute/disperse combustible gas/vapour with water curtain. Provide equipment/receptacles with earthing. Do not use compressed air for pumping over spills.
Methods for cleaning up	: Take up liquid spill into inert absorbent material, e.g.: sand, earth, vermiculite. Scoop absorbed substance into closing containers. See "Material-handling" for suitable container materials. Spill must not return in its original container. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Do not use compressed air for pumping over spills. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

### 6.4. Reference to other sections

No additional information available

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Handle uncleaned empty containers as full ones. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Do not use compressed air for pumping over. Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Avoid prolonged and repeated contact with skin. Keep container tightly closed. Measure the concentration in the air regularly. Work under local exhaust/ventilation.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage temperature : 15 - 20 °C  
Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.  
Information on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. reducing agents. (strong) acids. (strong) bases. halogens. amines.  
Storage area : Store in a cool area. Keep out of direct sunlight. Store in a dry area. Store in a dark area. Ventilation at floor level. Fireproof storeroom. Provide for an automatic sprinkler system. Provide for a tub to collect spills. Provide the tank with earthing. Meet the legal requirements.  
Special rules on packaging : SPECIAL REQUIREMENTS: closing. with pressure relief valve. clean. opaque. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.  
Packaging materials : SUITABLE MATERIAL: steel. stainless steel. carbon steel. aluminium. iron. copper. nickel. bronze. glass. MATERIAL TO AVOID: synthetic material.

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Acetone (67-64-1)		
EU	Local name	Acetone
EU	IOELV TWA (mg/m <sup>3</sup> )	1210 mg/m <sup>3</sup> (Acetone; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV TWA (ppm)	500 ppm (Acetone; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
Austria	Local name	Aceton
Austria	MAK (mg/m <sup>3</sup> )	1200 mg/m <sup>3</sup>
Austria	MAK (ppm)	500 ppm
Austria	MAK Short time value (mg/m <sup>3</sup> )	4800 mg/m <sup>3</sup>
Austria	MAK Short time value (ppm)	2000 ppm
Belgium	Local name	Acétone # Aceton
Belgium	Limit value (mg/m <sup>3</sup> )	1210 mg/m <sup>3</sup> (Acétone; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	500 ppm (Acétone; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Short time value (mg/m <sup>3</sup> )	2420 mg/m <sup>3</sup> (Acétone; Belgium; Short time value)
Belgium	Short time value (ppm)	1000 ppm (Acétone; Belgium; Short time value)
Bulgaria	Local name	Ацетон
Bulgaria	OEL TWA (mg/m <sup>3</sup> )	600 mg/m <sup>3</sup>
Bulgaria	OEL STEL (mg/m <sup>3</sup> )	1400 mg/m <sup>3</sup>
Bulgaria	Notes	• (Химични агенти, за които са определени гранични стойности във въздуха на работната среда за Европейската общност)
Croatia	Local name	Aceton
Croatia	GVI (granična vrijednost izloženosti) (mg/m <sup>3</sup> )	1210 mg/m <sup>3</sup>
Croatia	GVI (granična vrijednost izloženosti) (ppm)	500 ppm
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m <sup>3</sup> )	3620 mg/m <sup>3</sup>
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)	1500 ppm

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Acetone (67-64-1)		
Croatia	Naznake (HR)	F (lako zapaljivo); Xi (nadražujuće); EU* (naznaka da se radi o tvarima za koje su utvrđene indikativne granične vrijednosti izloženosti prema Direktivi 2000/39/ EC (prva lista))
Czech Republic	Local name	Aceton
Czech Republic	Expoziční limity (PEL) (mg/m <sup>3</sup> )	800 mg/m <sup>3</sup>
Czech Republic	Expoziční limity (PEL) (ppm)	337 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m <sup>3</sup> )	1500 mg/m <sup>3</sup>
Czech Republic	Expoziční limity (NPK-P) (ppm)	632 ppm
Denmark	Local name	Acetone (2-Propanon)
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	600 mg/m <sup>3</sup> 600 mg/m <sup>3</sup>
Denmark	Grænseværdie (langvarig) (ppm)	250 ppm 250 ppm
Denmark	Anmærkninger (DK)	E (betyder, at stoffet har en EF-grænseværdi)
Estonia	Local name	Atsetoon (2-propanoon)
Estonia	OEL TWA (mg/m <sup>3</sup> )	1210 mg/m <sup>3</sup>
Estonia	OEL TWA (ppm)	500 ppm
Finland	Local name	Asetoni
Finland	HTP-arvo (8h) (mg/m <sup>3</sup> )	1200 mg/m <sup>3</sup>
Finland	HTP-arvo (8h) (ppm)	500 ppm
Finland	HTP-arvo (15 min)	1500 mg/m <sup>3</sup>
Finland	HTP-arvo (15 min) (ppm)	630 ppm
France	Local name	Acétone
France	VME (mg/m <sup>3</sup> )	1210 mg/m <sup>3</sup> (Acétone; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
France	VME (ppm)	500 ppm (Acétone; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
France	KZGW (mg/m <sup>3</sup> )	2420 mg/m <sup>3</sup> (Acétone; France; Short time value; VRC: Valeur réglementaire contraignante)
France	KZGW (ppm)	1000 ppm (Acétone; France; Short time value; VRC: Valeur réglementaire contraignante)
France	Note (FR)	Valeurs réglementaires contraignantes
Germany	Local name	Aceton
Germany	TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	1200 mg/m <sup>3</sup>
Germany	TRGS 900 Occupational exposure limit value (ppm)	500 ppm
Germany	Remark (TRGS 900)	AGS,DFG,EU,Y
Gibraltar	Eight hours mg/m <sup>3</sup>	1210 mg/m <sup>3</sup>
Gibraltar	Eight hours ppm	500 ppm
Gibraltar	Name of agent	Acetone
Greece	OEL TWA (mg/m <sup>3</sup> )	1780 mg/m <sup>3</sup>
Greece	OEL STEL (mg/m <sup>3</sup> )	3560 mg/m <sup>3</sup>
Hungary	Local name	ACETON
Hungary	AK-érték	1210 mg/m <sup>3</sup>
Hungary	CK-érték	2420 mg/m <sup>3</sup>
Hungary	Megjegyzések (HU)	i; EU1
Ireland	Local name	Acetone
Ireland	OEL (8 hours ref) (mg/m <sup>3</sup> )	1210 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (ppm)	500 ppm

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<b>Acetone (67-64-1)</b>		
Ireland	Notes (IE)	IOELV
Italy	Local name	Acetone
Italy	OEL TWA (mg/m <sup>3</sup> )	1210 mg/m <sup>3</sup>
Italy	OEL TWA (ppm)	500 ppm
Latvia	Local name	Acetons (2-propanons, dimetilketons)
Latvia	OEL TWA (mg/m <sup>3</sup> )	1210 mg/m <sup>3</sup>
Latvia	OEL TWA (ppm)	500 ppm
Lithuania	Local name	Acetonas
Lithuania	IPRV (mg/m <sup>3</sup> )	1210 mg/m <sup>3</sup>
Lithuania	IPRV (ppm)	500 ppm
Lithuania	TPRV (mg/m <sup>3</sup> )	2420 mg/m <sup>3</sup>
Lithuania	TPRV (ppm)	1000 ppm
Luxembourg	Local name	Acétone
Luxembourg	OEL TWA (mg/m <sup>3</sup> )	1210 mg/m <sup>3</sup>
Luxembourg	OEL TWA (ppm)	500 ppm
Malta	Local name	Acetone
Malta	OEL TWA (mg/m <sup>3</sup> )	1210 mg/m <sup>3</sup>
Malta	OEL TWA (ppm)	500 ppm
Netherlands	Local name	Aceton
Netherlands	Grenswaarde TGG 8H (mg/m <sup>3</sup> )	1210 mg/m <sup>3</sup> (Aceton; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 8H (ppm)	501 ppm (Aceton; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 15MIN (mg/m <sup>3</sup> )	2420 mg/m <sup>3</sup> (Aceton; Netherlands; Short time value; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 15MIN (ppm)	1002 ppm (Aceton; Netherlands; Short time value; Public occupational exposure limit value)
Poland	Local name	Aceton
Poland	NDS (mg/m <sup>3</sup> )	600 mg/m <sup>3</sup>
Poland	NDSch (mg/m <sup>3</sup> )	1800 mg/m <sup>3</sup>
Portugal	Local name	Acetona
Portugal	OEL TWA (ppm)	500 ppm
Portugal	OEL STEL (ppm)	750 ppm
Romania	Local name	Acetona
Romania	OEL TWA (mg/m <sup>3</sup> )	1210 mg/m <sup>3</sup>
Romania	OEL TWA (ppm)	500 ppm
Slovenia	Local name	acetone
Slovenia	OEL TWA (mg/m <sup>3</sup> )	1210 mg/m <sup>3</sup>
Slovenia	OEL TWA (ppm)	500 ppm
Spain	Local name	Acetona
Spain	VLA-ED (mg/m <sup>3</sup> )	1210 mg/m <sup>3</sup>
Spain	VLA-ED (ppm)	500 ppm



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Spain	Notes	VLB® (Agente químico que tiene Valor Límite Biológico específico en este documento), VLI (Agente químico para el que la U.E. estableció en su día un valor límite indicativo. Todos estos agentes químicos figuran al menos en una de las directivas de valores límite indicativos publicadas hasta ahora (ver Anexo C. Bibliografía). Los estados miembros disponen de un tiempo fijado en dichas directivas para su transposición a los valores límites de cada país miembro. Una vez adoptados, estos valores tienen la misma validez que el resto de los valores adoptados por el país).
Sweden	Local name	Aceton
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	600 mg/m <sup>3</sup>
Sweden	nivågränsvärde (NVG) (ppm)	250 ppm
Sweden	kortidsvärde (KTV) (mg/m <sup>3</sup> )	1200 mg/m <sup>3</sup>
Sweden	kortidsvärde (KTV) (ppm)	500 ppm
Sweden	Anmärkning (SE)	V (Vägledande kortidsgränsvärde ska användas som ett rekommenderat högsta värde som inte bör överskridas)
United Kingdom	Local name	Acetone
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	1210 mg/m <sup>3</sup> Acetone; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (ppm)	500 ppm Acetone; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	3620 mg/m <sup>3</sup> Acetone; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (ppm)	1500 ppm Acetone; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
Iceland	Local name	Aseton (2-própanón)
Iceland	OEL (8 hours ref) (mg/m <sup>3</sup> )	600 mg/m <sup>3</sup>
Iceland	OEL (8 hours ref) (ppm)	250 ppm
Russian Federation	Local name	Пропан-2-он
Russian Federation	OEL Ceiling (mg/m <sup>3</sup> )	800 mg/m <sup>3</sup>
Russian Federation	OEL TWA (mg/m <sup>3</sup> )	200 mg/m <sup>3</sup>
Russian Federation	Remark (RU)	4 класс опасности - умеренно опасное; п (пары и/или газы)
Norway	Local name	Aceton
Norway	Grenseverdier (AN) (mg/m <sup>3</sup> )	295 mg/m <sup>3</sup>
Norway	Grenseverdier (AN) (ppm)	125 ppm
Norway	Merknader (NO)	E (EU har en veiledende grenseverdi for stoffet)
Switzerland	Local name	Aceton
Switzerland	VME (mg/m <sup>3</sup> )	1200 mg/m <sup>3</sup>
Switzerland	VME (ppm)	500 ppm
Switzerland	KZGW (mg/m <sup>3</sup> )	2400 mg/m <sup>3</sup>
Switzerland	KZGW (ppm)	1000 ppm
Switzerland	Remark (CH)	B - ZNS, Auge <sup>KT HU</sup> & AW <sup>KT HU</sup> - NIOSH
Turkey	Local name	Aseton
Turkey	OEL TWA (mg/m <sup>3</sup> )	1210 mg/m <sup>3</sup>
Turkey	OEL TWA (ppm)	500 ppm
Australia	Local name	Acetone
Australia	TWA (mg/m <sup>3</sup> )	1185 mg/m <sup>3</sup>
Australia	TWA (ppm)	500 ppm
Australia	STEL (mg/m <sup>3</sup> )	2375 mg/m <sup>3</sup>

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Australia	STEL (ppm)	1000 ppm
USA - ACGIH	Local name	Acetone
USA - ACGIH	ACGIH TWA (ppm)	500 ppm (Acetone; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA - ACGIH	ACGIH STEL (ppm)	750 ppm (Acetone; USA; Short time value; TLV - Adopted Value)
USA - ACGIH	Remark (ACGIH)	eye irr; CNS impair; BEI
USA - OSHA	Local name	Acetone
USA - OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	2400 mg/m <sup>3</sup>
USA - OSHA	OSHA PEL (TWA) (ppm)	1000 ppm

### 8.2. Exposure controls

#### Appropriate engineering controls:

Keep in a cool place. Ensure good ventilation of the work station.

#### Materials for protective clothing:

GIVE EXCELLENT RESISTANCE: No data available. GIVE GOOD RESISTANCE: butyl rubber. tetrafluoroethylene. GIVE LESS RESISTANCE: chlorosulfonated polyethylene. natural rubber. neoprene. polyurethane. PVA. styrene-butadiene rubber. GIVE POOR RESISTANCE: nitrile rubber. polyethylene. PVC. viton. nitrile rubber/PVC

#### Hand protection:

Gloves

#### Eye protection:

Safety glasses

#### Skin and body protection:

Head/neck protection. Protective clothing

#### Respiratory protection:

Wear gas mask with filter type A if conc. in air > exposure limit

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Transparent liquid
Molecular mass	: 58.08 g/mol
Colour	: Colourless
Odour	: Aromatic odour. Sweet odour. Fruity odour.
Odour threshold	: 306 - 653 ppm 737 - 1574 mg/m <sup>3</sup>
pH	: 5- 6 (395 g/l H <sub>2</sub> O, 20°C)
Relative evaporation rate (butylacetate=1)	: 6
Relative evaporation rate (ether=1)	: 2
Melting point	: -95 °C
Freezing point	: No data available
Boiling point	: 56 °C
Flash point	: -17 °C
Critical temperature	: 235 °C
Auto-ignition temperature	: 465 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 233 hPa (20 °C)
Vapour pressure at 50 °C	: 828 hPa (50 °C)
Critical pressure	: 47010 hPa



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Relative vapour density at 20 °C	: 2
Relative density	: 0.79
Relative density of saturated gas/air mixture	: 1.2
Density	: 790 kg/m <sup>3</sup>
Solubility	: Soluble in water. Soluble in ethanol. Soluble in ether. Soluble in dimethyl ether. Soluble in petroleum spirit. Soluble in chloroform. Soluble in dimethylformamide. Soluble in oils/fats. Water: Complete Ethanol: Complete Ether: Complete
Log Pow	: -0.24 (Test data)
Viscosity, kinematic	: 0.417 mm <sup>2</sup> /s
Viscosity, dynamic	: 32 mPa·s (20 °C; 0,27 mPa·s; 40 °C)
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 2.6 - 12.8 vol % 60 - 310 g/m <sup>3</sup>

### 9.2. Other information

Minimum ignition energy	: 1.15 mJ
Specific conductivity	: 500000 pS/m
Saturation concentration	: 589 g/m <sup>3</sup>
VOC content	: 100 %
Other properties	: Gas/vapour heavier than air at 20°C. Clear. Highly volatile. Substance has neutral reaction.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Upon combustion: CO and CO<sub>2</sub> are formed. Violent to explosive reaction with many compounds. Prolonged storage: on exposure to light: release of harmful gases/vapours. Reacts violently with (strong) oxidizers: peroxidation resulting in increased fire or explosion risk.

### 10.2. Chemical stability

Unstable on exposure to light.

### 10.3. Possibility of hazardous reactions

Heating may cause a fire.

### 10.4. Conditions to avoid

Overheating. Open flame. Sparks. High temperature.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

Acetone (67-64-1)	
LD50 oral rat	5800 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rabbit	20000 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; >7426 mg/kg bodyweight; Rabbit; Weight of evidence)
LC50 inhalation rat (mg/l)	71 mg/l/4h (Rat; Experimental value; 76 mg/l/4h; Rat; Experimental value)
LC50 inhalation rat (ppm)	30000 ppm/4h (Rat; Experimental value)

Skin corrosion/irritation	: Not classified pH: 7
Serious eye damage/irritation	: Causes serious eye irritation. pH: 7
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

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Reproductive toxicity	: Not classified
STOT-single exposure	: May cause drowsiness or dizziness.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

<b>Acetone (67-64-1)</b>	
Viscosity, kinematic	0.417 mm <sup>2</sup> /s

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general	: Not classified as dangerous for the environment according to the criteria of Directive 67/548/EEC. Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.
Ecology - air	: Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 842/2006). TA-Luft Klasse 5.2.5.
Ecology - water	: Not harmful to fishes (LC50(96h) >1000 mg/l). Not harmful to invertebrates (Daphnia). Not harmful to algae (EC50 >1000 mg/l). Not harmful to plankton. Inhibition of activated sludge.

<b>Acetone (67-64-1)</b>	
LC50 fish 2	5540 mg/l (LC50; EU Method C.1; 96 h; Salmo gairdneri; Static system; Fresh water; Experimental value)
EC50 Daphnia 2	12600 mg/l (LC50; Other; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)

#### 12.2. Persistence and degradability

<b>Acetone (67-64-1)</b>	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	1.43 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1.92 g O <sub>2</sub> /g substance
ThOD	2.2 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.872 (20 days; Literature study)

#### 12.3. Bioaccumulative potential

<b>Acetone (67-64-1)</b>	
BCF fish 1	0.69 (BCF)
BCF other aquatic organisms 1	3 (BCF; BCFWIN)
Log Pow	-0.24 (Test data)
Bioaccumulative potential	Not bioaccumulative.

#### 12.4. Mobility in soil

<b>Acetone (67-64-1)</b>	
Surface tension	0.0237 N/m

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product/Packaging disposal recommendations	: Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle by distillation. Remove to an authorized waste incinerator for solvents with energy recovery. Do not discharge into drains or the environment.
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Additional information : LWCA (the Netherlands): KGA category 03. Hazardous waste according to Directive 2008/98/EC.  
 European List of Waste (LoW) code : 07 01 04\* - other organic solvents, washing liquids and mother liquors

### SECTION 14: Transport information

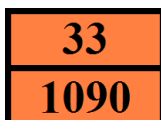
In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
1090	1090	1090	1090	1090
<b>14.2. UN proper shipping name</b>				
ACETONE	ACETONE	Acetone	ACETONE	ACETONE
<b>Transport document description</b>				
UN 1090 ACETONE, 3, II, (D/E)	UN 1090 ACETONE, 3, II (-20°C c.c.)	UN 1090 Acetone, 3, II	UN 1090 ACETONE, 3, II	UN 1090 ACETONE, 3, II
<b>14.3. Transport hazard class(es)</b>				
3	3	3	3	3
				
<b>14.4. Packing group</b>				
II	II	II	II	II
<b>14.5. Environmental hazards</b>				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR) : F1  
 Limited quantities (ADR) : 1I  
 Excepted quantities (ADR) : E2  
 Packing instructions (ADR) : P001, IBC02, R001  
 Mixed packing provisions (ADR) : MP19  
 Portable tank and bulk container instructions (ADR) : T4  
 Portable tank and bulk container special provisions (ADR) : TP1  
 Tank code (ADR) : LGBF  
 Vehicle for tank carriage : FL  
 Transport category (ADR) : 2  
 Special provisions for carriage - Operation (ADR) : S2, S20  
 Hazard identification number (Kemler No.) : 33  
 Orange plates :



Tunnel restriction code (ADR) : D/E

#### - Transport by sea

Transport regulations (IMDG) : Subject  
 Limited quantities (IMDG) : 1 L  
 Excepted quantities (IMDG) : E2  
 Packing instructions (IMDG) : P001  
 IBC packing instructions (IMDG) : IBC02

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Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-D
Stowage category (IMDG)	: E
Flash point (IMDG)	: -20°C to -18°C c.c.
Properties and observations (IMDG)	: Colourless, clear liquid, with a characteristic mint-like odour. Flashpoint: -20°C to -18°C c.c. Explosive limits: 2.5% to 13% Miscible with water.
MFAG-No	: 127

### - Air transport

Transport regulations (IATA)	: Subject to the provisions
PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y341
PCA limited quantity max net quantity (IATA)	: 1L
PCA packing instructions (IATA)	: 353
PCA max net quantity (IATA)	: 5L
CAO packing instructions (IATA)	: 364
CAO max net quantity (IATA)	: 60L
ERG code (IATA)	: 3H

### - Inland waterway transport

Classification code (ADN)	: F1
Limited quantities (ADN)	: 1 L
Excepted quantities (ADN)	: E2
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 1

### - Rail transport

Transport regulations (RID)	: Subject
Classification code (RID)	: F1
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02, R001
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T4
Portable tank and bulk container special provisions (RID)	: TP1
Tank codes for RID tanks (RID)	: LGBF
Transport category (RID)	: 2
Colis express (express parcels) (RID)	: CE7
Hazard identification number (RID)	: 33

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Acetone is not on the REACH Candidate List

Acetone is not on the REACH Annex XIV List

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VOC content : 100 %

### 15.1.2. National regulations

Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Not subject to reporting requirements of the United States SARA Section 313

#### Germany

VwVwS Annex reference : Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 1 or 2; ID No. 6)

WGK remark : Classification water polluting in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 2)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

#### Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

#### Denmark

Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product  
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Abbreviations and acronyms:

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
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
EC50	Median effective concentration
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Full text of H- and EUH-statements:	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour

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H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness
EUH066	Repeated exposure may cause skin dryness or cracking

SDS ISOLAB

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*