

# SAFETY DATA SHEET Acetone

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

## 1.1. Product identifier

Product name Acetone

Product number S106

Internal identification SWS

Synonyms; trade names Propanone, Dimethyl Ketone

REACH registration number 01-2119471330-49-XXXX

CAS number 67-64-1

**EU index number** 606-001-00-8

**EC number** 200-662-2

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

Identified uses Solvent for industrial use

**Uses advised against** Use only for intended applications.

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

Supplier Solvents With Safety Ltd

Units 1-4

Plumtree Farm Industrial Estate

Harworth Doncaster DN11 8EW United Kingdom 01302 711733 01302 711744

sales@solventswithsafety.co.uk

## 1.4. Emergency telephone number

**Emergency telephone** 0844 5605341 (24 Hours) (in use from 13/01/13)

## SECTION 2: Hazards identification

## 2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

**Physical hazards** Flam. Liq. 2 - H225

**Health hazards** Eye Irrit. 2 - H319 STOT SE 3 - H336

Environmental hazards Not Classified

2.2. Label elements

**EC number** 200-662-2

#### Acetone

#### **Pictogram**





Signal word Danger

**Hazard statements** H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

**Precautionary statements** P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

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

P403+P235 Store in a well-ventilated place. Keep cool.

Supplementary precautionary statements

P240 Ground/ bond container and receiving equipment.

P241 Use explosion-proof electrical equipment. P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing vapour/ spray.

P264 Wash contaminated 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/ shower.

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.

P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.

P314 Get medical advice/ attention if you feel unwell.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/ container in accordance with national regulations.

#### 2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

# SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Product name Acetone

**REACH registration number** 01-2119471330-49-XXXX

**EU index number** 606-001-00-8

**CAS number** 67-64-1 **EC number** 200-662-2

## SECTION 4: First aid measures

#### 4.1. Description of first aid measures

**General information** Keep affected person away from heat, sparks and flames.

**Inhalation** Move affected person to fresh air at once. If breathing stops, provide artificial respiration.

When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Keep affected person warm and at rest. Get medical attention

immediately.

**Ingestion** Never give anything by mouth to an unconscious person. Do not induce vomiting. Get medical

attention immediately.

Skin contact Remove affected person from source of contamination. Remove contaminated clothing

immediately and wash skin with soap and water. Get medical attention immediately.

Eye contact Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15

minutes and get medical attention.

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

**Inhalation** There may be irritation of the throat with a feeling of tightness in the chest. May cause an

asthma-like shortness of breath.

**Ingestion** Overexposure may cause the following adverse effects: Unconsciousness. Nausea, vomiting.

Skin contact There may be irritation and redness at the site of contact. An itchy rash may occur at the site

of contact.

Eye contact There may be pain and redness.

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

**Notes for the doctor** If exposed or concerned get medical advice/attention.

**Specific treatments** Eye bathing equipment should be available on the premises.

#### SECTION 5: Firefighting measures

## 5.1. Extinguishing media

Suitable extinguishing media Water spray, fog or mist. Dry chemicals, sand, dolomite etc. DO NOT extinguish fire unless

flow can be stopped first. Halon. Foam, carbon dioxide or dry powder.

Unsuitable extinguishing

media

Do not use water jet as an extinguisher, as this will spread the fire.

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

Specific hazards Forms explosive mixtures with air. May explode when heated or when exposed to flames or

sparks. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back. Vapour explosion and poison hazard indoors,

outdoors and in sewers.

## 5.3. Advice for firefighters

Protective actions during firefighting

Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Water spray may be used to flush spills away from exposures and dilute spills to non-flammable mixtures. Control run-off water by containing and keeping it out of sewers and watercourses. Do not use water jet as an extinguisher, as this will spread the fire. Cool containers exposed to flames with water until well after the fire is out. Move containers from fire area if it can be done without risk. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Use water spray to reduce vapours. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. If risk of water pollution occurs, notify appropriate authorities.

## **Acetone**

Special protective equipment for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective

clothing.

## SECTION 6: Accidental release measures

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

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

For non-emergency personnel Follow instructions given by emergency personnel.

For emergency responders Refer to this MSDS.

## 6.2. Environmental precautions

**Environmental precautions** Avoid the spillage or runoff entering drains, sewers or watercourses.

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

## Methods for cleaning up

Ventilate well, stop flow of gas or liquid if possible. Remove ignition sources. Do not allow chemical to enter confined spaces such as sewers due to explosion risk. Sewers designed to preclude formation of explosive concentrations of vapour may be permitted. Absorb small quantities with paper towels and evaporate in a safe place. Collect for reclamation or absorb in vermiculite, dry sand or similar material. Leave small quantities to evaporate, if safe to do so. Do not allow material to enter confined spaces, due to the risk of explosion. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Provide adequate ventilation. Contain spillage with sand, earth or other suitable non-combustible material. Avoid the spillage or runoff entering drains, sewers or watercourses.

## 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8.

## SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Usage precautions** Keep away from heat, sparks and open flame. Avoid spilling. Provide adequate ventilation.

Avoid inhalation of vapours. Use approved respirator if air contamination is above an acceptable level. Read and follow manufacturer's recommendations. Avoid contact with skin

and eyes.

Advice on general occupational hygiene

Take off contaminated clothing and wash it before re-use.

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

Storage precautions Keep away from oxidising materials, heat and flames. May attack some plastics, rubber and

coatings. Store in tightly-closed, original container in a dry, cool and well-ventilated place.

Earth container and transfer equipment to eliminate sparks from static electricity.

Storage class Flammable liquid storage.

7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure Controls/personal protection

#### 8.1. Control parameters

## Occupational exposure limits

Long-term exposure limit (8-hour TWA): WEL 500 ppm 1210 mg/m<sup>3</sup> Short-term exposure limit (15-minute): WEL 1500 ppm 3620 mg/m<sup>3</sup>

## WEL = Workplace Exposure Limit

DNEL No data available.PNEC No data available.

#### 8.2. Exposure controls

#### Protective equipment





Appropriate engineering

controls

Use explosion-proof general and local exhaust ventilation. Work in fume cupboard.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles.

Hand protection

Wear protective gloves made of the following material: Butyl rubber. or Polytetrafluoroethylene

(PTFE, Teflon).

Other skin and body

protection

Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station and safety shower. Wear appropriate clothing to prevent repeated or

prolonged skin contact. In confined or poorly-ventilated spaces, a supplied-air respirator must

be worn.

Hygiene measures

Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes wet or contaminated. Do not smoke in work area. Contaminated clothing should be placed in a closed container for disposal or decontamination. Use appropriate hand lotion to prevent defatting and cracking of skin.

delati

Respiratory protection

Wear a respirator fitted with the following cartridge: Organic vapour filter. Wear a respirator fitted with the following cartridge: Organic vapour filter. Wear a full facepiece, supplied-air respirator. Wear self-contained breathing apparatus with full facepiece.

# SECTION 9: Physical and Chemical Properties

## 9.1. Information on basic physical and chemical properties

Appearance Liquid.

Colourless.

Odour Characteristic.

Odour threshold Data lacking.

**pH** Data lacking.

Melting point -95°C

Initial boiling point and range 56°C @

Flash point -18°C CC (Closed cup).

Evaporation rate Data lacking.

Evaporation factor Data lacking.

Flammability (solid, gas) Data lacking.

Upper/lower flammability or

explosive limits

Upper flammable/explosive limit: 12.8 Lower flammable/explosive limit: 2.5

#### Acetone

Other flammabilityData lacking.Vapour pressure24 kPa @ °CVapour densityData lacking.Relative density0.788 @ 25°C

Solubility(ies) Miscible with water. Miscible with the following materials: Alcohols. Ether.

Partition coefficient Data lacking.

Auto-ignition temperature 465°C

**Decomposition Temperature** Data lacking.

**Viscosity** 0.44 cP @ 20°C

**Explosive properties** Data lacking.

Explosive under the influence

of a flame

Not considered to be explosive.

Oxidising properties

**Bulk density** 

There are no chemical groups present in the product that are associated with oxidising

properties.

Data lacking.

9.2. Other information

Molecular weight 58.1 Volatility 100

# SECTION 10: Stability and reactivity

## 10.1. Reactivity

**Reactivity** Stable under recommended transport or storage conditions.

10.2. Chemical stability

**Stability** Avoid the following conditions: Heat, sparks, flames. Stable at normal ambient temperatures.

# 10.3. Possibility of hazardous reactions

Possibility of hazardous

reactions

products

Will not polymerise.

10.4. Conditions to avoid

Conditions to avoid Avoid contact with strong oxidising agents. Avoid contact with acids and alkalis. Avoid heat,

flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents.

# 10.6. Hazardous decomposition products

Hazardous decomposition T

Thermal decomposition or combustion products may include the following substances: Highly

flammable gases or vapours. Carbon monoxide (CO). Carbon dioxide (CO2).

## SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Other health effects There is no evidence that the product can cause cancer.

## Skin corrosion/irritation

**Skin corrosion/irritation** Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation Causes eye irritation.

Respiratory sensitisation

Respiratory sensitisation Not sensitising.

Skin sensitisation

Skin sensitisation Not sensitising.

Germ cell mutagenicity

**Genotoxicity - in vitro**This substance has no evidence of mutagenic properties.

**Genotoxicity - in vivo**This substance has no evidence of mutagenic properties.

Carcinogenicity

**Carcinogenicity** There is no evidence that the product can cause cancer.

Reproductive toxicity

Reproductive toxicity - fertility This substance has no evidence of toxicity to reproduction.

Reproductive toxicity -

development

No evidence of reproductive toxicity in animal studies.

#### Specific target organ toxicity - single exposure

**STOT - single exposure**Not classified as a specific target organ toxicant after a single exposure.

#### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard Not anticipated to present an aspiration hazard, based on chemical structure.

General information Prolonged and repeated contact with solvents over a long period may lead to permanent

health problems.

**Inhalation** Vapours may irritate throat/respiratory system. A single exposure may cause the following

adverse effects: Coughing. Difficulty in breathing. May cause damage to mucous membranes in nose, throat, lungs and bronchial system. Excessive inhalation of vapours can cause

respiratory irritation, headache, drowsiness and fatigue.

**Ingestion** Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal

tract.

**Skin contact** Product has a defatting effect on skin. Irritating to skin.

**Eye contact** Irritating to eyes.

Acute and chronic health

hazards

Gas or vapour is harmful on prolonged exposure or in high concentrations. Symptoms following overexposure may include the following: Irritation of eyes and mucous membranes. Narcotic effect. A single exposure may cause the following adverse effects: Central nervous system depression. Vapour from this product may be hazardous by inhalation. Repeated exposure may cause chronic eye irritation. Defatting, drying and cracking of skin. Swallowing concentrated chemical may cause severe internal injury. Central and/or peripheral nervous system damage. Prolonged or repeated exposure may cause the following adverse effects: Serious damage to the lining of nose, throat and lungs. Prolonged or repeated exposure to vapours in high concentrations may cause the following adverse effects: Sore throat. Irritation of nose, throat and airway.

## Acetone

Route of entry Inhalation Skin absorption Ingestion. Skin and/or eye contact

Target organs Central nervous system Eyes Gastro-intestinal tract Respiratory system, lungs Skin

Medical symptoms Irritation of eyes and mucous membranes. Rhinitis (inflammation of the nasal mucous

membranes). Upper respiratory irritation. General respiratory distress, unproductive cough. Skin irritation. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Intoxication. Symptoms following overexposure to dust may include the

following: Irritability. Headache. Nausea, vomiting. Hypotension (low blood pressure).

**Medical considerations** Skin disorders and allergies.

#### SECTION 12: Ecological Information

**Ecotoxicity** Fish: Low Daphnia: Moderate

12.1. Toxicity

**Toxicity** LOW

Acute toxicity - fish LC₅₀, 96 hours: >100 mg/l, Algae

#### 12.2. Persistence and degradability

Persistence and degradability Significant Conpartments likely to be air, water. Persistance: in air, moderate; in water and

soil, rapid biodegredation.

#### 12.3. Bioaccumulative potential

Bioaccumulative potential LOW ON THE BASIS OF BCF

Partition coefficient Data lacking.

12.4. Mobility in soil

**Mobility** Highly volatile.

## 12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB

assessment

This product does not contain any substances classified as PBT or vPvB.

#### 12.6. Other adverse effects

#### **SECTION 13: Disposal considerations**

## 13.1. Waste treatment methods

General information If this product becomes waste it is to be treated as hazardous waste. Any other constituents

or contaminents in the waste stream must be taken into account when classifying the waste. In the EU, the European Waste Catalogue Code to be assigned is dependant on the

processes giving rise to the waste. In the absence of any such processes having taken place EWC 140603\* (other solvents and solvent mixtures) may be used. Hazardous waste must be suitably contained, stored, packaged and transported, see section 7 and 4 for such details. In

the UK only waste carriers registered with the Environment Agency may transport waste.

**Disposal methods**Waste and residues must be disposed of in accordance with national regulatory requirements.

## **SECTION 14: Transport information**

## 14.1. UN number

**UN No. (ADR/RID)** 1090

**UN No. (IMDG)** 1090

UN No. (ICAO) 1090 UN No. (ADN) 1090

## 14.2. UN proper shipping name

Proper shipping name

**ACETONE** 

(ADR/RID)

Proper shipping name (IMDG) ACETONE

Proper shipping name (ICAO) ACETONE

Proper shipping name (ADN) ACETONE

## 14.3. Transport hazard class(es)

ADR/RID class 3

ADR/RID classification code F1

ADR/RID label 3

IMDG class 3

ICAO class/division 3

ADN class 3

## Transport labels



# 14.4. Packing group

ADR/RID packing group II

IMDG packing group II

ADN packing group II

ICAO packing group II

#### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant No.

## 14.6. Special precautions for user

EmS F-E, S-D

ADR transport category 2

Emergency Action Code •2YE

Hazard Identification Number 33

(ADR/RID)

Tunnel restriction code (D/E)

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

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

#### SECTION 15: Regulatory information

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

National regulations Classification, Packaging and Labelling Regulations 1984.

Highly Flammable Liquid Regulations 1972.

Health and Safety at Work etc. Act 1974 (as amended).

The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as

amended).

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

#### **SECTION 16: Other information**

General information Please ensure that this Safety Data Sheet is passed onto the relevant person(s) in your

company, who are capable of acting on the information given.

Key literature references and

sources for data

Dangerous Properties of Industrial Chemicals, 6.edition, N.Sax, 1984. OSHA Air

Contaminants - Permissible Exposure Limits (Title 29). Handbook of Toxic and Hazardous Chemicals and Carcinogens, Sittig, 1985. Hazardous Materials, Emergency Response Guidebook, DOT-P 5800.3, 1984. Material Safety Data Sheet, Misc. manufacturers. NIOSH/OSHA Pocket Guide to Chemical Hazards, 1978. Chemical Hazards of the

Workplace, Proctor & Hughes, Lippincott, 1978 The Condensed Chemical Dictionary, Hawley, 11th. edition, 1987. The Merck Index, 11. edition, 1989. Threshold Limit Values and Biological Exposure Indices for 1985-86. Chemical Safety Data Guide. Bureau of National Affairs, 1985.

Croner's :Substances Hazardous to the Environment.2005. IPCS via ILO

Revision comments GHS update

**Issued by** Nicola Dobson, R+D Supervisor

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Revision 4

Supersedes date 27/01/2016

SDS number 20916

SDS status Approved.

Hazard statements in full H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

Signature N Dobson

This Safety Data Sheet is compiled in accordance with the legal requirements set by EC 1907/2006 based on information available on 1st June 2007 (date of entry in force). Information not yet completed in this SDS depends on information yet to be received from suppliers following time-scales allowed for in the regulations and for further guidance that will be made available after the onset of the REACH regulations. The Data contained in this data sheet has been supplied as required by Chemicals (Hazard Identification and Packaging) Regulations 1994, for the purpose of protecting the health and safety of industrial and commercial users who are deemed capable of acting on the information. No representation, guarantee or warranty, expressed or implied, is made as to the accuracy or reliability of this information. Nor can it be assumed that all necessary warnings or precautionary measures are given and the information may not be valid for this material when used in conjunction with any other material or any other process.