

## Acetone

Version 1.01

Revision Date 26.05.2011

# Material Safety Data Sheet

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

**Trade name** Acetone  
**Synonyms** Acetone, 2-Propanone, Dimethyl ketone, Ketone propane, beta-Ketopropane  
**Use** Industrial use  
**Company** Sasol Chemicals North America LLC  
900 Threadneedle, Suite 10  
Houston, TX 77079-2990 US

**Telephone** CHEMTREC North America Transport Emergency (24-hr) (800) 424-9300  
CHEMTREC World Wide Transport Emergency (24-hr) (703) 527-3887  
MSDS and Product Information (8:00am-4:30pm CST) (281) 588-3315  
Sasol LCCC Main Gate Guard (337) 494-5142

## SECTION 2 Hazards identification

### Emergency Overview

**Danger** Highly flammable.  
**State of matter** liquid colourless  
**Odour** pungent

### Potential environmental effects

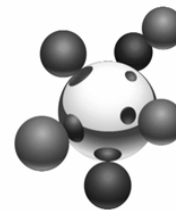
**Environmental precautions** Should not be released into the environment. Prevent further leakage or spillage if safe to do so.

Ecological information: See chapter 12

### Potential health effects

#### Acute effects

**Eyes** Causes eye irritation.



## Acetone

Version 1.01

Revision Date 26.05.2011

**Skin** Prolonged or repeated contact may dry skin and cause irritation.

**Inhalation** May cause respiratory tract irritation.

**Ingestion** Aspiration hazard if swallowed - can enter lungs and cause damage.

Toxicological information: See chapter 11

### SECTION 3 Composition/information on ingredients

**Components**

acetone; propan-2-one; propanone

**CAS-No.**

67-64-1

**Weight percent**

100.00

Exposure limit(s): See chapter 8

Classification and hazard labelling: See chapter 15

### SECTION 4 First aid measures

**Eye contact** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**Skin contact** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before re-use. If skin irritation persists, call a physician.

**Inhalation** Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.

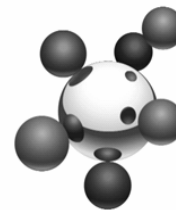
**Ingestion** If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

### SECTION 5 Fire-fighting measures

**Flammability**

**Flash point** -20 °C

**Autoignition temperature** 465 °C



## Acetone

Version 1.01

Revision Date 26.05.2011

|   |  |
|---|--|
| <b>Explosion limits</b>                     | <b>Lower explosion limit:</b> 2.6 %(V)<br><b>Upper explosion limit:</b> 12.8 %(V)          |
| <b>Fire/explosion</b>                       | Flash back possible over considerable distance.  |
| <b>Hazardous combustion products</b>        | Carbon oxides  |
| <b>Suitable extinguishing media</b>         | Water spray<br>Alcohol-resistant foam<br>Dry chemical<br>Carbon dioxide (CO <sub>2</sub> ) |
| <b>Unsuitable extinguishing media</b>       | No information available.  |
| <b>Protection measures and instructions</b> | Wear self-contained breathing apparatus and protective suit.                               |
| <b>Further information</b>                  | Cool containers / tanks with water spray.  |

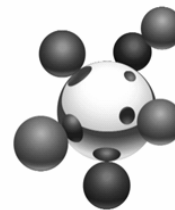
## SECTION 6 Accidental release measures

|                                  |   |
|----------------------------------|---|
| <b>Personal precautions</b>      | Keep people away from and upwind of spill/leak. Remove all sources of ignition. Do not breathe vapours or spray mist. |
| <b>Environmental precautions</b> | Should not be released into the environment. Prevent further leakage or spillage if safe to do so.                    |
| <b>Methods for cleaning up</b>   | Soak up with inert absorbent material and dispose of as hazardous waste.  |

Exposure controls/personal protection: See chapter 8

## SECTION 7 Handling and storage

|  |   |
|--|---|
| <b>Safe handling advice</b>                            | Provide sufficient air exchange and/or exhaust in work rooms. Wear personal protective equipment. Take precautionary measures against static discharge. Ensure all equipment is electrically grounded before beginning transfer operations. |
| <b>Advice on protection against fire and explosion</b> | Keep away from heat and sources of ignition. Use explosion-proof equipment.   |
| <b>Storage</b>   | Keep containers tightly closed in a dry, cool and well-ventilated place.  |



## **Acetone**

---

Version 1.01

Revision Date 26.05.2011

---

### **SECTION 8 Exposure controls/personal protection**

#### **Engineering measures**

Provide sufficient air exchange and/or exhaust in work rooms.

#### **Personal protective equipment**

**Eyes** Safety glasses with side-shields

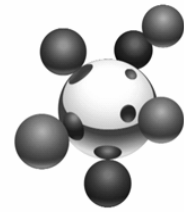
**Skin** Protective suit Safety shoes

**Inhalation** In case of insufficient ventilation, wear suitable respiratory equipment.

#### **Hand protection**

**Hygiene measures** Wash hands before breaks and immediately after handling the product.

**Protective measures** Wear suitable protective equipment.



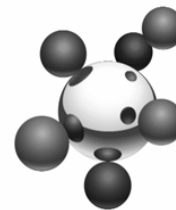
# Acetone

Version 1.01

Revision Date 26.05.2011

## Exposure Guidelines

| <u>Components</u> | <u>Exposure limit(s)</u>  |
|-------------------|---|
| ACETONE           | US. ACGIH Threshold Limit Values time weighted average 500 ppm<br>US. ACGIH Threshold Limit Values Short term exposure limit 750 ppm<br>US. NIOSH: Pocket Guide to Chemical Hazards Recommended exposure limit (REL): 250 ppm (590 mg/m3)<br>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) Permissible exposure limit 1,000 ppm (2,400 mg/m3)<br>US. OSHA Table Z-1-A (29 CFR 1910.1000) time weighted average 750 ppm (1,800 mg/m3)<br>US. OSHA Table Z-1-A (29 CFR 1910.1000) Short term exposure limit 1,000 ppm (2,400 mg/m3)<br>US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants Time Weighted Average (TWA) Permissible Exposure Limit (PEL): 500 ppm (1,200 mg/m3)<br>US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants Ceiling Limit Value: 3,000 ppm<br>US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants Short term exposure limit 750 ppm (1,780 mg/m3)<br>EU. Indicative Exposure and Directives relating to the protection of risks related to work exposure to chemical, physical, and biological agents. time weighted average 500 ppm (1,210 mg/m3)<br>US. ACGIH Threshold Limit Values<br>US. NIOSH: Pocket Guide to Chemical Hazards<br>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)<br>US. OSHA Table Z-1-A (29 CFR 1910.1000)<br>US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants<br>US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) Short-Term ESL:<br>US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) Annual ESL:<br>US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality)<br>US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A time weighted average 750 ppm (1,800 mg/m3)<br>US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A Short term exposure limit 1,000 ppm (2,400 mg/m3)<br>US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A<br>EU. Indicative Exposure and Directives relating to the protection of risks related to work exposure to chemical, physical, and biological agents.<br>Listed Listed Listed Listed Listed Listed Listed Listed |
| PEL=              | Permissible Exposure Limits   |
| TLV=              | Threshold Limit Value   |
| EL=               | Excursion Limit   |
| TWA=              | Time Weighted Average (8 hr.)   |
| STEL=             | Short Term Exposure Limit (15 min.)   |
| WEEL=             | Workplace Environmental Exposure Level  |



## Acetone

---

Version 1.01

Revision Date 26.05.2011

---

### SECTION 9 Physical and chemical properties

|                                    |                        |
|------------------------------------|------------------------|
| <b>State of matter</b>             | liquid                 |
| <b>Colour</b>                      | colourless             |
| <b>Odour</b>                       | pungent                |
| <b>Form</b>                        | liquid                 |
| <b>Boiling point/boiling range</b> | 56.2 °C                |
| <b>Flash point</b>                 | -20 °C                 |
| <b>Lower explosion limit</b>       | 2.6 %(V)               |
| <b>Upper explosion limit</b>       | 12.8 %(V)              |
| <b>Vapour pressure</b>             | 307.974 hPa at 25 °C   |
| <b>Solubility(ies)</b>             | soluble                |
| <b>Viscosity</b>                   | 0.4 mm <sup>2</sup> /s |
| <b>Melting point/range</b>         | -95.35 °C              |
| <b>Density</b>                     | 0.79 g/cm <sup>3</sup> |

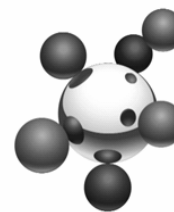
---

### SECTION 10 Stability and reactivity

|   |  |
|---|--|
| <b>Conditions to avoid</b>              | Heat, flames and sparks.   |
| <b>Hazardous decomposition products</b> | Carbon oxides  |
| <b>Incompatible products</b>            | Strong oxidizing agents<br>Incompatible with acids.<br>Halogenated compounds |
| <b>Hazardous reactions</b>              | Hazardous polymerisation does not occur.                                     |

---

---



## Acetone

---

Version 1.01

Revision Date 26.05.2011

---

### SECTION 11 Toxicological information

- Acute oral toxicity** Acetone:  
LD50 rat: 5,800 mg/kg; literature value
- Acute inhalation toxicity** Acetone:  
LC50 rat: > 20 mg/l; literature value; 4 h
- Acute dermal toxicity** Acetone:  
LD50 rabbit: 20,000 mg/kg; literature value
- Skin irritation** Acetone:  
rabbit: moderately irritating; (literature value)
- Eye irritation** Acetone:  
rabbit: irritating; (literature value)
- Acetone:  
rabbit: moderately irritating; Draize Test

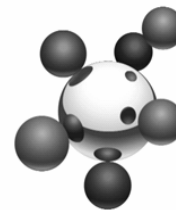
---

### SECTION 12 Ecological information

- Biodegradability** Acetone:  
100 %; 5 d
- Acetone:  
89 %; 21 d
- Bioaccumulation** Acetone:  
1

#### Ecotoxicity effects

- Toxicity to fish** Acetone:  
LC50 Oncorhynchus mykiss (rainbow trout): 5,540 mg/l; 96 h; literature value
- Acetone:  
LC50 Lepomis macrochirus (Bluegill sunfish): 8,300 mg/l; 96 h; literature value
- Acetone:  
LC50 Pimephales promelas: 8,120 mg/l; 96 h; literature value
- Toxicity to daphnia** Acetone:  
EC50 Daphnia magna: 10 mg/l; 24 h
- Toxicity to algae** Acetone:  
EC50 Pseudokirchneriella subcapitata: > 100 mg/l; 96 h; literature value



## Acetone

Version 1.01

Revision Date 26.05.2011

### SECTION 13 Disposal considerations

- Waste Classification** US. EPA Resource Conservation and Recovery Act: (RCRA) D List of Characteristic Hazardous Wastes (40 CFR 261.21-24): D001
- Waste from residues / unused products** In accordance with local and national regulations. Do not contaminate ponds, waterways or ditches with chemical or used container. The product should not be allowed to enter drains, water courses or the soil.
- Uncleaned empty packaging** Do not burn, or use a cutting torch on, the empty drum., Triple rinse containers., Can be offered for recycling, re-conditioning or puncture.

Handling and storage: See chapter 7

Exposure controls/personal protection: See chapter 8

### SECTION 14 Transport information

- DOT/49CFR** UN 1090 Acetone, 3, II  
**IMDG** UN 1090 ACETONE, 3, II; EmS F-E, S-D  
**ICAO/IATA** UN 1090 Acetone, 3, II

### SECTION 15 Regulatory information

#### U.S. Federal Classifications:

- OSHA Hazards** Flammable liquid, Mild eye irritant
- SARA 311/312** Fire Hazard, Acute Health Hazard

#### U.S. Regulated Ingredients:

##### Hazard information reporting

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required

##### Components

CAS-No.

US. Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)

##### Components

CAS-No.

Acetone

67-64-1

US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

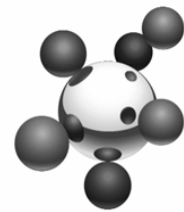
##### Components

CAS-No.

Acetone

67-64-1





## Acetone

Version 1.01

Revision Date 26.05.2011

### US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

#### Components

Acetone

#### CAS-No.

67-64-1

### US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)

#### Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

#### CAS-No.

### Spill reporting

#### US. EPA CERCLA Hazardous Substances (40 CFR 302)

#### Components

Acetone

#### CAS-No.

67-64-1

#### Reportable Quantity

5,000 lbs 5,000 lbs  
3 mg/L 60 mg/kg  
3 mg/kg 50 mg/L  
100 lbs 5,000 lbs 1 lbs

### Health

#### US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

#### Components

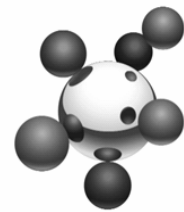
Not listed

#### CAS-No.

### Inventories

|  |   |
|--|---|
| EU list of existing chemical substances  | All chemical constituents are listed in: EU list of existing chemical substances (See chapter 3)  |
| US TSCA Inventory                        | All chemical constituents are listed in: US TSCA Inventory (See chapter 3)                        |
| Australian Inv. of Chem. Substances AICS | All chemical constituents are listed in: Australian Inv. of Chem. Substances AICS (See chapter 3) |
| Canadian Domestic Substances List DSL    | All chemical constituents are listed in: Canadian Domestic Substances List DSL (See chapter 3)    |
| Jap. Inv. of Exist. & New Chemicals ENCS | All chemical constituents are listed in: Jap. Inv. of Exist. & New Chemicals ENCS (See chapter 3) |
| Korean Exist. Chemicals List ECL         | All chemical constituents are listed in: Korean Exist. Chemicals List ECL (See chapter 3)         |
| Philippines Inv. of Chem. Subst. PICCS   | All chemical constituents are listed in: Philippines Inv. of Chem. Subst. PICCS (See chapter 3)   |
| Inv. of Exist. Chem. Substances in China | All chemical constituents are listed in: Inv. of Exist. Chem. Substances in China (See chapter 3) |

### Other international regulations



## Acetone

Version 1.01

Revision Date 26.05.2011

**WHMIS Classification** B2: Flammable liquid  
D2B: Toxic Material Causing Other Toxic Effects

### SECTION 16 Other information

#### Hazard Ratings

|             | <u>Health</u> | <u>Flammability</u> | <u>Reactivity</u> | <u>Hazard</u> |
|-------------|---------------|---------------------|-------------------|---------------|
| <b>HMIS</b> | 1             | 3                   | 0                 |               |
| <b>NFPA</b> | 1             | 3                   | 0                 |               |

All reasonable efforts were exercised to compile this SDS in accordance with ISO 11014 and ANSIZ400.1.1993. The SDS provides information regarding the health, safety and environmental hazards, at the date of issue, to facilitate the safe receipt, use and handling of the product in the workplace. Since Sasol and its subsidiaries cannot anticipate or control all conditions under which the product may be handled, used and received in the workplace, it remains the obligation of each user, receiver or handler to, prior to usage, review this SDS in the context within which the product will be received, handled or used in the workplace. The user, handler or receiver must ensure that the necessary mitigating measures are in place as regards health and safety. This does not substitute the need or requirement for any relevant risk assessments to be conducted. It further remains the responsibility of the receiver, handler or user to communicate such information to all relevant parties that may be involved in the receipt, use or handling of the product. Although all reasonable efforts were exercised in the compilation of this SDS, Sasol does not expressly warrant the accuracy or assume any liability for the incompleteness of the information contained herein or any advice given. The product is sold and risk passes in accordance with the specific terms and conditions of sale.

*The MSDS was created by: B.SHAMASE*

*The MSDS was approved by: Frans Shai*