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

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

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>acetone; propan-2-one; propanone</td>
<td>67-64-1</td>
<td>100.00</td>
</tr>
</tbody>
</table>

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

Explosion limits  Lower explosion limit: 2.6 % (V)
                 Upper explosion limit: 12.8 % (V)

Fire/explosion  Flash back possible over considerable distance.
               Hazardous combustion products  Carbon oxides

Suitable extinguishing media  Water spray
                                Alcohol-resistant foam
                                Dry chemical
                                Carbon dioxide (CO2)

Unsuitable extinguishing media  No information available.

Protection measures and instructions  Wear self-contained breathing apparatus and protective suit.

Further information  Cool containers / tanks with water spray.

SECTION 6  Accidental release measures

Personal precautions  Keep people away from and upwind of spill/leak. Remove all sources of ignition. Do not breathe vapours or spray mist.

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

Methods for cleaning up  Soak up with inert absorbent material and dispose of as hazardous waste.

Exposure controls/personal protection: See chapter 8

SECTION 7  Handling and storage

Safe handling advice  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.

Advice on protection against fire and explosion  Keep away from heat and sources of ignition. Use explosion-proof equipment.

Storage  Keep containers tightly closed in a dry, cool and well-ventilated place.
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.
## Exposure Guidelines

<table>
<thead>
<tr>
<th>Components</th>
<th>Exposure limit(s)</th>
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<tbody>
<tr>
<td>ACETONE</td>
<td>US. ACGIH Threshold Limit Values time weighted average 500 ppm</td>
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<tr>
<td></td>
<td>US. ACGIH Threshold Limit Values Short term exposure limit 750 ppm</td>
</tr>
<tr>
<td></td>
<td>US. NIOSH: Pocket Guide to Chemical Hazards Recommended exposure limit (REL): 250 ppm (590 mg/m³)</td>
</tr>
<tr>
<td></td>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) Permissible exposure limit 1,000 ppm (2,400 mg/m³)</td>
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<td></td>
<td>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)</td>
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<tr>
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<td>US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants Ceiling Limit Value: 3,000 ppm</td>
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<tr>
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<td>US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants Short term exposure limit 750 ppm (1,780 mg/m³)</td>
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<td>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)</td>
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### Glossary

- **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

SECTION 9   Physical and chemical properties

State of matter    liquid

Colour             colourless

Odour              pungent

Form               liquid

Boiling point/boiling range    56.2 °C

Flash point        -20 °C

Lower explosion limit    2.6 %(V)

Upper explosion limit    12.8 %(V)

Vapour pressure     307.974 hPa at 25 °C

Solubility(ies)     soluble

Viscosity          0.4 mm2/s

Melting point/range  -95.35 °C

Density            0.79 g/cm3

SECTION 10   Stability and reactivity

Conditions to avoid  Heat, flames and sparks.

Hazardous decomposition products    Carbon oxides

Incompatible products    Strong oxidizing agents
                          Incompatible with acids.
                          Halogenated compounds

Hazardous reactions     Hazardous polymerisation does not occur.
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
SECTION 13   Disposal considerations

**Waste Classification**

**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

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<td>67-64-1</td>
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US. Massachusetts Commonwealth’s Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)

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

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</table>
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.

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
mg/L
60 mg/kg
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

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

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

SECTION 16  Other information

Hazard Ratings

<table>
<thead>
<tr>
<th></th>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>Hazard</th>
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<tr>
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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