Acetone

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

<table>
<thead>
<tr>
<th>Trade name</th>
<th>Acetone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonyms</td>
<td>2-propanone, Dimethyl ketone, Ketone propane, beta-Ketopropane.</td>
</tr>
<tr>
<td>Use</td>
<td>Industrial use, Intermediate, Paint and Coatings, Personal care, Pesticide, Pharmaceutical, Process/Extraction Solvent, Raw material for chemical processes, Raw material for cosmetic products, Raw material for industry, Raw material for pharmaceuticals, Solvent</td>
</tr>
<tr>
<td>Company</td>
<td>Sasol Chemicals (USA) LLC</td>
</tr>
<tr>
<td>Address</td>
<td>900 Threadneedle Ste 100 Houston TX 77079</td>
</tr>
<tr>
<td>Telephone</td>
<td>CHEMTREC North America Transportation Emergency (24-hr) (800) 424-9300</td>
</tr>
<tr>
<td></td>
<td>CHEMTREC World Wide (703) 527-3887</td>
</tr>
<tr>
<td></td>
<td>Other Emergencies (24-hr) (337) 494-5142</td>
</tr>
<tr>
<td></td>
<td>MSDS and Product Information (8:00am-4:30pm CST) (281) 588-3491</td>
</tr>
<tr>
<td></td>
<td>Health and Safety Information (7:30am-4:00pm CST) (281) 588-3492</td>
</tr>
<tr>
<td>E-mail address</td>
<td><a href="mailto:SasolElectronicSDS@us.sasol.com">SasolElectronicSDS@us.sasol.com</a></td>
</tr>
</tbody>
</table>

SECTION 2 HAZARDS IDENTIFICATION

GHS Hazards

- Flammable liquids Category 2
- Eye irritation Category 2A
- Specific target organ toxicity - single exposure Category 3 (Narcotic effects)

LABEL ELEMENTS

Hazard symbols

![Flammable and Hazard Symbols](image)

Signal word Danger

Hazard statements

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

Precautionary statements

Prevention

- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P233 Keep container tightly closed.
- P240 Ground/bond container and receiving equipment.
Acetone

P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P280 Wear protective gloves/ eye protection/ face protection.
P264 Wash skin thoroughly after handling.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P271 Use only outdoors or in a well-ventilated area.

Response
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide for extinction.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.

Storage
P403 + P405 + P235 Store locked up in a well-ventilated place. Keep cool.

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</td>
<td>67-64-1</td>
<td>99.9</td>
</tr>
</tbody>
</table>

See Section 8 for Exposure Guidelines and Section 15 for Regulatory Classifications.

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. When symptoms persist or in all cases of doubt seek medical advice. Wash contaminated clothing before re-use.

Inhalation Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. In case of shortness of breath, give oxygen. Call a physician immediately.

Ingestion If swallowed, call a poison control centre or doctor immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

SECTION 5 FIREFIGHTING MEASURES

FLAMMABLE PROPERTIES
Fire/explosion Vapours may form explosive mixture with air. Flash back possible over considerable distance. Use water spray to disperse the vapors. NFPA Class IB flammable liquid.
Acetone

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Protective equipment and precautions for firefighters
In the event of fire, wear self-contained breathing apparatus.

Further information
Keep containers and surroundings cool with water spray. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up
Evacuate personnel to safe areas. Remove all sources of ignition. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Do not flush into surface water or sanitary sewer system.

SECTION 7 HANDLING AND STORAGE

Safe handling advice
Ensure all equipment is electrically grounded before beginning transfer operations. Keep away from heat and sources of ignition.

Storage/Transport pressure
Ambient

Load/Unload temperature
Ambient

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES
Air contaminant levels should be controlled below the PEL or TLV for this product (see Exposure Guidelines). Ensure adequate ventilation, especially in confined areas. Use explosion-proof equipment.

PERSONAL PROTECTIVE EQUIPMENT

Eyes
Chemical resistant goggles must be worn., Face-shield

Skin
Wear suitable protective clothing, gloves and eye/face protection.

Inhalation
Respiratory protection is normally not required except in emergencies or when conditions cause excessive airborne levels of mists or vapors. Use NIOSH approved respiratory protection.

EXPOSURE GUIDELINES

<table>
<thead>
<tr>
<th>Components</th>
<th>Exposure limit(s)</th>
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<tbody>
<tr>
<td>Acetone</td>
<td>OSHA PEL 1,000 ppm 2,400 mg/m3</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (8-hour) 500 ppm</td>
</tr>
<tr>
<td></td>
<td>ACGIH STEL 750 ppm</td>
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</table>
# Acetone

## Section 9 Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>liquid;</td>
</tr>
<tr>
<td>Colour</td>
<td>Clear, colorless</td>
</tr>
<tr>
<td>Form</td>
<td>liquid</td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
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<tr>
<td>Odour Threshold</td>
<td>no data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>-17 °C, 1.4 °F;</td>
</tr>
<tr>
<td>Flammability</td>
<td>Upper explosion limit: 13.0 % (V)</td>
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<tr>
<td></td>
<td>Lower explosion limit: 2.5 % (V)</td>
</tr>
<tr>
<td>Boiling point/boiling</td>
<td>56 °C, 133 °F;</td>
</tr>
<tr>
<td>range</td>
<td></td>
</tr>
<tr>
<td>Melting point/range</td>
<td>-95.35 °C, -139.6 °F;</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>465 °C, 869 °F;</td>
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<tr>
<td>Decomposition temperature</td>
<td>no data available</td>
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<tr>
<td>Flammability (solid, gas)</td>
<td>no data available</td>
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<tr>
<td>Vapour pressure</td>
<td>240 hPa @ 20 °C, 68 °F;</td>
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<tr>
<td>Vapour density</td>
<td>no data available</td>
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<tr>
<td>Density</td>
<td>0.79 g/cm³ @ 20 °C, 68 °F;</td>
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<tr>
<td>Specific gravity</td>
<td>no data available</td>
</tr>
<tr>
<td>Water solubility</td>
<td>completely miscible</td>
</tr>
<tr>
<td>Viscosity</td>
<td>no data available</td>
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<tr>
<td>Viscosity, dynamic</td>
<td>0.32 mPa.s @ 20 °C, 68 °F;</td>
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<tr>
<td>pH</td>
<td>no data available</td>
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</tbody>
</table>
Acetone

Evaporation rate  no data available
Partition coefficient: n-octanol/water  no data available
Volatile organic compounds (VOC) content  100 %

SECTION 10  STABILITY AND REACTIVITY

Reactivity  Vapours may form explosive mixture with air.
Chemical stability  No decomposition if stored and applied as directed.
Conditions to avoid  Extremes of temperature and direct sunlight.
Hazardous decomposition products  None known.
Materials to avoid  Oxidizing agents
Hazardous polymerisation  May form explosive peroxides.

SECTION 11  TOXICOLOGICAL INFORMATION

Acute dermal toxicity  LD50 rabbit: > 2,000 mg/kg (literature value)
Acute inhalation toxicity  LC50 rat (4 hours): > 20 mg/l (literature value)
Acute oral toxicity  LD50 rat: > 2,000 mg/kg (literature value)
Skin corrosion/irritation  (rabbit) Moderately irritating, (literature value)
Eye damage/irritation  (rabbit) irritating, (literature value)
Respiratory or skin sensitization  no data available
Germ cell mutagenicity  Genotoxicity in vitro:
Type: Ames test
System: Salmonella typhimurium; with and without metabolic activation
Result: In vitro tests did not show mutagenic effects. (literature value)
Genotoxicity in vivo:

Revision Date 02/25/2015  Version 1.0  Print Date 02/25/2015  Page 5 of 9
Acetone

no data available

**Assessment Mutagenicity:**
Based on available data, the classification criteria are not met.

**Reproductive toxicity**

**Reproductive toxicity:**
no data available

**Assessment Reproductive toxicity:**
no data available

**Teratogenicity:**
no data available

**Assessment teratogenicity:**
no data available

**STOT - single exposure**
The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

**STOT - repeated exposure**
no data available

**Aspiration toxicity**
no data available

**Carcinogenicity**

**Assessment carcinogenicity:**
Contains no ingredient listed as a carcinogen

---

**SECTION 12  ECOLOGICAL INFORMATION**

**Toxicity to fish**
LC50 (Oncorhynchus mykiss (rainbow trout)) 96 hours: > 100 mg/l; static test (literature value)

**Toxicity to aquatic invertebrates**
EC50 (Daphnia magna (Water flea)) 48 hours: > 100 mg/l; static test (literature value)

**Toxicity to algae**
EC50 (Pseudokirchneriella subcapitata (green algae)) 96 hours: > 100 mg/l; static test (literature value)

**Chronic toxicity to aquatic invertebrates**
NOEC (Daphnia magna (Water flea)) 28 d: > 100 mg/l; flow-through test (literature value)

**Biodegradation**
Readily biodegradable.

OECD Test Guideline 301B (28 d): > 60 % (literature value)

**Bioaccumulation**
no data available

**Mobility in soil**
no data available
SAFETY DATA SHEET

Acetone

Other adverse effects  no data available

SECTION 13  DISPOSAL CONSIDERATIONS

Waste Code  F003 (RQ 5,000 Lbs) D001 - Ignitability (RQ 100 LB). Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations, mixtures, contamination, and spillage may change the classification.

Disposal methods  Dispose of only in accordance with local, state, and federal regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

Empty containers.  Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, triple-rinsed, properly bunged and promptly returned to a drum reconditioner, or properly disposed.

SECTION 14  TRANSPORT INFORMATION

DOT  UN 1090, Acetone, 3, II
When shipped in quantities greater than 5,000 lbs, RQ must be added to the shipping description.

IATA  UN 1090, Acetone, 3, II
When shipped in quantities greater than 5,000 lbs, RQ must be added to the shipping description.

IMDG  UN 1090, Acetone, 3, II
When shipped in quantities greater than 5,000 lbs, RQ must be added to the shipping description.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remarks  no data available

SECTION 15  REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

OSHA Hazards (HCS 1994)
Flammable liquid, Eye irritant

TSCA Inventory Listing

Components
Acetone  CAS-No.  67-64-1

SARA 302 Status
Components

CAS-No.  Weight percent

Revision Date 02/25/2015  Version 1.0  Print Date 02/25/2015  110000000902  Page 7 of 9
SAFETY DATA SHEET

Acetone

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

SARA 311/312 Classification
"Fire hazard", "Immediate (acute) health hazard"

SARA 313 Chemical Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

<table>
<thead>
<tr>
<th>Components</th>
<th>Reportable Quantity</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>5,000 LB</td>
<td>99.9 %</td>
</tr>
</tbody>
</table>

INTERNATIONAL REGULATIONS

WHMIS Classification
Class B, Division 2: Flammable liquid.
Class D, Division 2, Subdivision B: Toxic material.

European Union
Classification according to Regulation (EU) 1272/2008.

- Flammable liquids, Category 2
- Eye irritation, Category 2
- Specific target organ toxicity - single exposure, Category 3 (Narcotic effects)

Australia. Inventory of Chemical Substances (AICS) Listed
Japan. Inventory of Existing and New Chemical Substances (ENCS) Listed
Japan. Industrial Safety & Health Law (ISHL) Inventory Listed
Canada. Domestic Substances List (DSL) Inventory Listed
Canadian Non-Domestic Substance Listing (NDSL) Not listed
European Inventory of Existing Commercial Chemical Substances (EINECS) Listing Listed
Philippines. Inventory of Chemicals / Chemical Substances (PICCS) Listed
Korea. Existing Chemicals Inventory (KECI) Listed
China. Inventory of Existing Chemical Substances (IECSC) Listed
Mexico. National Inventory of Chemical Substances (INSQ) Listed
New Zealand. Inventory of Chemicals (NZIoC) Listed
Switzerland. Inventory of Notified New Substances (CHINV) Listed
Taiwan. National Existing Chemical Inventory (NECI) Listed
SAFETY DATA SHEET

Acetone

Please note: The names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in Section 3.

STATE REGULATIONS

California Prop. 65

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 16 OTHER INFORMATION

HAZARD RATINGS

<table>
<thead>
<tr>
<th>HMIS®</th>
<th>Health</th>
<th>Flammability</th>
<th>Physical Hazard/Instability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

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