



J.T. Baker Inc.  
222 Red School Lane  
Phillipsburg, NJ 08865

24-Hour Emergency Telephone 908-859-2151  
National Response Center 800-424-8802  
Chemtrec 800-424-9300

National Response In Canada  
CANUTEC 613-996-6666

Outside U.S. and Canada  
Chemtrec 202-483-7616

**MATERIAL SAFETY DATA SHEET**

FICHE  
SIGNALÉTIQUE

HOJAS DE DATOS  
DE SEGURIDAD

**NOTE:** CHEMTREC, CANUTEC and National Response Center emergency numbers are to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals. All non-emergency questions should be directed to Customer Service (1-800-JTBAKER) for assistance.

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Effective: 03/09/92

Acetone

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J.T.BAKER INC., 222 Red School Lane, Phillipsburg, NJ 08865

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SECTION I - PRODUCT IDENTIFICATION

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Product Name: Acetone  
Common Synonyms: Dimethyl Ketone; 2-Propanone; Dimethyl Ketal  
Chemical Family: Ketones  
Formula:  $(CH_3)_2CO$   
Formula Wt.: 58.08  
CAS No.: 67-64-1  
NIOSH/RTECS No.: AL3150000  
Product Use: Laboratory Reagent  
Product Codes: 5805,9002,9007,9004,9001,A134,9125,9008,9009,5356,9005,9006  
9010,5580,9254,9015

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PRECAUTIONARY LABELING

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BAKER SAF-T-DATA\* System

HEALTH <b>1</b> SLIGHT	FLAMMABILITY  <b>3</b> SEVERE	REACTIVITY <b>2</b> MODERATE	CONTACT <b>1</b> SLIGHT
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Laboratory Protective Equipment

 GOGGLES	 LAB COAT	 VENT HOOD	 PROPER GLOVES	 EXTIN-GUISHER
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U.S. Precautionary Labeling

**DANGER!**  
CAUSES IRRITATION. EXTREMELY FLAMMABLE. HARMFUL IF SWALLOWED OR INHALED.  
Keep away from heat, sparks, flame. Avoid contact with eyes, skin, clothing.  
Avoid breathing vapor. Keep in tightly closed container. Use with adequate  
ventilation. Wash thoroughly after handling. In case of fire, use alcohol  
foam, dry chemical, carbon dioxide - water may be ineffective. In case of  
spill, soak up with sand or earth. Flush spill area with water.



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===== PRECAUTIONARY LABELING (CONTINUED) =====

International Labeling

Highly flammable.  
Keep container in a well-ventilated place. Keep away from sources of ignition  
- No smoking. Do not breathe vapor. Take precautionary measures against static discharges.

SAF-T-DATA\* Storage Color Code: Red (flammable)

===== SECTION II - COMPONENTS =====

<u>Component</u>	<u>CAS No.</u>	<u>Weight %</u>	<u>OSHA/PEL</u>	<u>ACGIH/TLV</u>
Acetone	67-64-1	90-100	750 ppm	750 ppm

===== SECTION III - PHYSICAL DATA =====

Boiling Point: 56°C (132°F)  
(at 760 mm Hg)      Vapor Pressure (mmHg): 181  
(20°C)

Melting Point: -95°C (-139°F)  
(at 760 mm Hg)      Vapor Density (air=1): 2.0

Specific Gravity: 0.79  
(H<sub>2</sub>O=1)      Evaporation Rate: 14.4  
(Butyl Acetate = 1)

Solubility(H<sub>2</sub>O): Complete (100%)      % Volatiles by Volume: 100  
(21°C)

pH: N/A

Odor Threshold (ppm): 100      Physical State: Liquid

Coefficient Water/Oil Distribution: N/A

Appearance & Odor: Clear, colorless liquid. Sweet odor.



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**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**  
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Flash Point (Closed Cup): -18°C (-2°F) NEPA 704M Rating: 1-3-0

Autoignition Temperature: 464°C (869°F)

Flammable Limits: Upper - 13.0 % Lower - 2.6 %

Fire Extinguishing Media

Use alcohol foam, dry chemical or carbon dioxide. (Water may be ineffective.)

Special Fire-Fighting Procedures

Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode. Move containers from fire area if it can be done without risk. Use water to keep fire-exposed containers cool.

Unusual Fire & Explosion Hazards

Vapors may flow along surfaces to distant ignition sources and flash back. Closed containers exposed to heat may explode. Contact with strong oxidizers may cause fire.

Toxic Gases Produced

carbon monoxide, carbon dioxide

Explosion Data-Sensitivity to Mechanical Impact

None identified.

Explosion Data-Sensitivity to Static Discharge

None identified.

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**SECTION V - HEALTH HAZARD DATA**  
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Threshold Limit Value (TLV/TWA): 1780 mg/m<sup>3</sup> (750 ppm)

Short-Term Exposure Limit (STEL): 2375 mg/m<sup>3</sup> (1000 ppm)

Permissible Exposure Limit (PEL): 1800 mg/m<sup>3</sup> (750 ppm)

Toxicity of components

Oral Rat LD<sub>50</sub> for Acetone 9750 mg/kg



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SECTION V - HEALTH HAZARD DATA (CONTINUED)

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Oral Mouse LD <sub>50</sub> for Acetone	3000 mg/kg
Intraperitoneal Mouse LD <sub>50</sub> for Acetone	1297 mg/kg
Skin Rabbit LD <sub>50</sub> for Acetone	20 g/kg
Carcinogenicity: NTP: No IARC: No Z List: No OSHA Reg: No	

Carcinogenicity  
None identified.

Reproductive Effects  
None identified.

Effects of Overexposure

INHALATION: irritation of nose and throat, headache, nausea, vomiting, dizziness, narcosis, respiratory failure, low blood pressure, central nervous system depression, coma

SKIN CONTACT: irritation, prolonged contact may cause dermatitis

EYE CONTACT: severe irritation, may cause temporary corneal damage

SKIN ABSORPTION: may occur

INGESTION: headache, nausea, vomiting, dizziness, gastrointestinal irritation, central nervous system depression, unconsciousness

CHRONIC EFFECTS: kidney damage, liver damage

Target Organs  
respiratory system, lungs, eyes, skin, central nervous system

Medical Conditions Generally Aggravated by Exposure  
chronic respiratory disease, skin disorders, eye disorders

Primary Routes of Entry  
inhalation, ingestion, eye contact, skin contact



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SECTION V - HEALTH HAZARD DATA (CONTINUED)  
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Emergency and First Aid Procedures

- INGESTION: CALL A PHYSICIAN. If swallowed, if conscious, give large amounts of water. Induce vomiting.
- INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
- SKIN CONTACT: In case of contact, flush skin with water.
- EYE CONTACT: In case of eye contact, immediately flush with plenty of water for at least 15 minutes.

Notes to Physician

Treatment for accidental ingestion of a small amount of Acetone is unnecessary. If a large amount has been ingested, administer an aqueous charcoal slurry.

SARA/TITLE III HAZARD CATEGORIES and LISTS

Acute: Yes Chronic: Yes Flammability: Yes Pressure: No Reactivity: No

Extremely Hazardous Substance: No

CERCLA Hazardous Substance: Yes Contains Acetone (RQ = 5000 LBS)

SARA 313 Toxic Chemicals: Yes Contains Acetone

Generic Class: Generic Class Removed from CFR: 7/1/91

TSCA Inventory: Yes

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SECTION VI - REACTIVITY DATA  
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Stability: Stable Hazardous Polymerization: Will not occur

Conditions to Avoid: heat, flame, other sources of ignition

Incompatibles: strong oxidizing agents, strong bases, halogen acids and halogen compounds, caustics, amines and ammonia, chlorine and chlorine compounds, strong acids, esp. sulfuric, nitric, hydrochloric

Decomposition Products: carbon monoxide, carbon dioxide



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SECTION VII - SPILL & DISPOSAL PROCEDURES  
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Steps to be Taken in the Event of a Spill or Discharge

Wear suitable protective clothing. Shut off ignition sources; no flares, smoking, or flames in area. Stop leak if you can do so without risk. Use water spray to reduce vapors. Take up with sand or other non-combustible absorbent material and place into container for later disposal. Flush area with water.

J. T. Baker SOLUSORB<sup>R</sup> solvent adsorbent is recommended for spills of this product.

Disposal Procedure

Dispose in accordance with all applicable federal, state, and local environmental regulations.

EPA Hazardous Waste Number: U002 (Toxic Waste)

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SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT  
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Ventilation: Use general or local exhaust ventilation to meet TLV requirements.

Respiratory Protection: Respiratory protection required if airborne concentration exceeds TLV. At concentrations up to 5000 ppm, a chemical cartridge respirator with organic vapor cartridge is recommended. Above this level, a self-contained breathing apparatus is recommended.

Eye/Skin Protection: Safety goggles, butyl rubber gloves are recommended.

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SECTION IX - STORAGE AND HANDLING PRECAUTIONS  
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SAF-T-DATA\* Storage Color Code: Red (flammable)

Storage Requirements

Keep container tightly closed. Store in a cool, dry, well-ventilated, flammable liquid storage area. Isolate from incompatible materials.

Special Precautions

Bond and ground containers when transferring liquid.



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SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION  
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Domestic (D.O.T.)

Proper Shipping Name: Acetone  
Hazard Class: 3.1  
UN/NA: UN1090 Reportable Quantity: 5000 LBS. Packaging Group: II  
Labels: FLAMMABLE LIQUID  
Regulatory References: 49CFR 172.101; 173.119

International (I.M.O.)

Proper Shipping Name: Acetone  
Hazard Class: 3.1 I.M.O. Page: 3102  
UN: UN1090 Marine Pollutants: No Packaging Group: II  
Labels: FLAMMABLE LIQUID  
Regulatory References: 49CFR 172.12(b); IMDG Code

AIR (I.C.A.O.)

Proper Shipping Name: Acetone  
Hazard Class: 3.1  
UN: UN1090 Packaging Group: II  
Labels: FLAMMABLE LIQUID  
Regulatory References: 49CFR 172.101; ICAO==

==== We believe the transportation data and references contained herein to be factual and the opinion of qualified experts. The data is meant as a guide to the overall classification of the product and is not package size specific, nor should it be taken as a warranty or representation for which the company assumes legal responsibility.=== The information is offered solely for your consideration, investigation, and verification. Any use of the information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations. See shipper requirements 49CFR 172.3 and employee training 49CFR 173.1.

U.S. Customs Harmonization Number: 29141100008



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N/A = Not Applicable or Not Available  
N/E = Not Established  
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The information in this Material Safety Data Sheet meets the requirements of the United States OCCUPATIONAL SAFETY AND HEALTH ACT and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and the Canadian WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM. This document is intended only as a guide to the appropriate precautionary handling of the material by a person trained in, or supervised by a person trained in, chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes.

Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, Baker cannot warn of all of the potential dangers of use or interaction with other chemicals or materials. Baker warrants that the chemical meets the specifications set forth on the label.

BAKER DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR PURPOSE.

The user should recognize that this product can cause severe injury and even death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Baker will periodically revise this Material Safety Data Sheet.

Note: CHEMTREC, CANUTEC, and NATIONAL RESPONSE CENTER emergency telephone numbers are to be used ONLY in the event of CHEMICAL EMERGENCIES involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to Customer Service (1-800-JTBAKER) for assistance.

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Approved by Quality Assurance Department.