MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: **ACETONE**

Manufacturer Information:

Sunoco, Inc. (R&M)
1735 Market Street LL

Philadelphia, Pennsylvania, 19103-7583

Product Use:

Chemical intermediate

Emergency Phone Numbers:

Chemtrec	(800) 424-9300
Sunoco Inc.	(800) 964-8861

Information:

Product Safety Information	(610) 859-1120

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Amount (Vol%)
ACETONE	67-64-1	100

EXPOSURE GUIDELINES (SEE SECTION 15 FOR ADDITIONAL EXPOSURE LIMITS)

	CAS No.	Governing Body	Exposure Limits		
Limit for the product	67-64-1	ACGIH	STEL	750	ppm
Limit for the product	67-64-1	ACGIH	TWA	500	ppm
Limit for the product	67-64-1	OSHA	TWA	1000	ppm

3. HAZARDS IDENTIFICATION

- **EMERGENCY OVERVIEW**
  Danger! Extremely flammable liquid and vapor. Vapors may cause flash fire or explosion. Harmful if inhaled. High vapor concentrations may cause drowsiness. Causes skin and eye irritation. Harmful if swallowed. May cause target organ or system damage to the following: eye, skin, respiratory system, central nervous system,

Hazards Ratings:

Key: 0 = least, 1 = slight, 2 = moderate, 3 = high, 4 = extreme

	Health	Fire	Reactivity	PPI
NFPA	1	3	0	
HMIS	1	3	0	X

- **POTENTIAL HEALTH EFFECTS**

  - **PRE-EXISTING MEDICAL CONDITIONS**
    The following diseases or disorders may be aggravated by exposure to this product: skin, eye, lung (asthma-like conditions),
  - **INHALATION**
    High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis and loss of consciousness and even death). High vapor concentrations are irritating to the eyes, nose, throat, and lungs.

LC50 (mg/l):	no data	
LC50 (mg/m3):	rat; 8 hrs	50000
LC50 (ppm):	no data	

  - **SKIN**
    Moderately irritating to the skin. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

Draize Skin Score:	no data	Out of 8.0
LD50 (mg/kg):	rabbit	20000

  - **EYES**
    Contact with the eye may cause moderate to severe irritation.
  - **INGESTION**
    Product may be harmful or fatal if swallowed. Pulmonary aspiration hazard. After ingestion, may enter lungs and produce damage. May produce central nervous system effects, which may include dizziness, loss of balance and coordination, unconsciousness, coma and even death.

LD50 (g/kg):	rat	5.8

4. FIRST AID MEASURES

- **INHALATION**
  Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and continue to monitor. Get immediate medical attention.
- **SKIN**
  Immediately flush skin with plenty of water. Remove clothing. Get medical attention immediately. Wash clothing separately before reuse.
- **EYES**
  Flush eye with water for 15 minutes. Get medical attention.
- **INGESTION**
  If swallowed, do NOT induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Get medical attention immediately. See Section 15 for additional first aid information.

5. FIRE FIGHTING MEASURES

- **EXTINGUISHING MEDIA**
  Water spray; Alcohol resistant foam; Dry chemical; Carbon dioxide;
- **FIRE FIGHTING INSTRUCTIONS**
  Use water spray. Use water spray to cool fire exposed tanks and containers. Acetone/water solutions that contain more than 2.5% acetone have flash points. When the acetone concentration is greater than 8% (by weight) in a closed container, it would be within the flammable range and cause fire or explosion if a source of ignition were introduced.

FLAMMABLE PROPERTIES

	Typical	Minimum	Maximum	Text Result	Units	Method
Flash Point	1.4				F	N/A
Autoignition Temperature	869				F	N/A
Lower Explosion Limit	2.5				%	N/A
Upper Explosion Limit	12.8				%	N/A

6. ACCIDENTAL RELEASE MEASURES

Prevent ignition, stop leak and ventilate the area. Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Use appropriate personal protective equipment as stated in Section 8 of this MSDS. Advise the Environmental Protection Agency (EPA) and appropriate state agencies, if required. US regulations require reporting spills of this material that could reach any surface waters. The toll free number for the US Coast Guard National Response Center is (800) 424-8802. After removal, flush contaminated area thoroughly with water.

7. HANDLING AND STORAGE

- **HANDLING**
  Use only in a well-ventilated area. Ground and bond containers when transferring material. Avoid breathing (dust, vapor, mist, gas). Avoid contact with this material. Wash thoroughly after handling. Do not use air pressure to unload containers.
- **STORAGE**
  Keep away from heat, sparks, and flame. Store in a cool dry place. Keep container closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Consult With a Health and Safety Professional for Specific Selections

- **ENGINEERING CONTROLS**
  Use with adequate ventilation. Ventilation is normally required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Use explosion-proof ventilation equipment.
- **PERSONAL PROTECTION**
  - **EYE PROTECTION**
    Splash proof chemical goggles or full face shield recommended to protect against splash of product.
  - **GLOVES or HAND PROTECTION**
    The glove(s) listed below may provide protection against permeation. Gloves of other chemically resistant materials may not provide adequate protection. Protective gloves are recommended to protect against contact with product. Neoprene; Natural rubber;
  - **RESPIRATORY PROTECTION**
    Concentration in air determines the level of respiratory protection needed. Use only NIOSH certified respiratory equipment. Half-mask air purifying respirator with organic vapor cartridges is acceptable for exposures to ten (10) times the exposure limit. Full-face air purifying respirator with organic vapor cartridges is acceptable for exposures to fifty (50) times the exposure limit. Exposure should not exceed the cartridge limit of 1000 ppm. Protection by air purifying respirators is limited. Use a positive pressure-demand full-face supplied air respirator or SCBA for exposures greater than fifty (50) times the exposure limit. If exposure is above the IDLH (Immediately Dangerous to Life and Health) or there is the possibility of an uncontrolled release, or exposure levels are unknown, then use a positive pressure-demand full-face supplied air respirator with escape bottle or SCBA. Wear a NIOSH-approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.
  - **OTHER**
    The following materials are acceptable for use as protective clothing: Neoprene; Natural rubber; Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Remove contaminated clothing and wash before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Property	Typical	Units	Text Result	Reference
Appearance		N/A	Colorless liq	
Boiling Point	133	F		
Bulk Density		lb/gal	No data	
Melting Point	-137.2	F		
Molecular Weight	58.08	g/mole		
Octanol/Water Coefficient		N/A	No data	
pH	7	N/A		
Specific Gravity	0.79	N/A		
Solubility In Water		wt %	Complete	
Odor		N/A	Sweet pungent	
Odor Threshold	62	ppm		
Vapor Pressure	181	mmHg	@ 20 C	
Viscosity (F)		SUS	No data	
Viscosity (C)		CsT	No data	
% Volatile	100	wt %		

10. STABILITY AND REACTIVITY

- **STABILITY**
  Stable
- **CONDITIONS TO AVOID**
  Avoid heat, sparks and open flame.
- **INCOMPATIBILITY**
  Acetone may form explosive mixtures with chromic anhydride, chromyl alcohol, hexachloromelamine, hydrogen peroxide, permonosulfuric acid, potassium tertbutoxide, and thioglycol. Strong oxidizers
- **HAZARDOUS DECOMPOSITION PRODUCTS**
  Combustion may produce carbon monoxide, carbon dioxide and other asphyxiants.
- **HAZARDOUS POLYMERIZATION**
  Will not polymerize.

11. ECOLOGICAL INFORMATION

This product is not expected to persist in the environment.

12. DISPOSAL CONSIDERATIONS

Follow federal, state and local regulations. In Canada, follow federal, provincial and local regulations. This material is a RCRA hazardous waste. Do not flush material to drain or storm sewer. Contract to authorized disposal service.

13. TRANSPORT INFORMATION

Governing Body	Mode	Proper Shipping Name
DOT	Ground	Acetone

Governing Body	Mode	Hazard Class	UN/NA No.	Label
DOT	Ground	3 (Flammable liquid)	UN1090	

14. REGULATORY INFORMATION

Regulatory List	Component	CAS No.
ACGIH - Occupational Exposure Limits - Carcinogens	ACETONE	67-64-1
ACGIH - Occupational Exposure Limits - TWAs	ACETONE	67-64-1
ACGIH - Short Term Exposure Limits	ACETONE	67-64-1
CAA (Clean Air Act) - HON Rule - SOCMI Chemicals	ACETONE	67-64-1
Canada - WHMIS - Ingredient Disclosure	ACETONE	67-64-1
CERCLA/SARA - Haz Substances and their RQs	ACETONE	67-64-1
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CERCLA/SARA - Haz Substances and their RQs	ACETONE	67-64-1
Inventory - Australia (AICS)	ACETONE	67-64-1
Inventory - Canada - Domestic Substances List	ACETONE	67-64-1
Inventory - China	ACETONE	67-64-1
Inventory - European EINECS Inventory	ACETONE	67-64-1
Inventory - Japan - (ENCS)	ACETONE	67-64-1
Inventory - Korea - Existing and Evaluated	ACETONE	67-64-1
Inventory - Philippines Inventory (PICCS)	ACETONE	67-64-1
Inventory - TSCA - Sect. 8(b) Inventory	ACETONE	67-64-1
Massachusetts - Right To Know List	ACETONE	67-64-1
New Jersey - Department of Health RTK List	ACETONE	67-64-1
New Jersey - Special Hazardous Substances	ACETONE	67-64-1
OSHA - Final PELs - Time Weighted Averages	ACETONE	67-64-1
Pennsylvania - RTK (Right to Know) List	ACETONE	67-64-1
TSCA - Sect. 12(b) - Export Notification	ACETONE	67-64-1
TSCA - Section 4 - Chemical Test Rules	ACETONE	67-64-1

Title III Classifications Sections 311,312:

- Acute: **YES**
- Chronic: **NO**
- Fire: **YES**
- Reactivity: **NO**
- Sudden Release of Pressure: **NO**

15. OTHER INFORMATION

If swallowed, acetone should be removed by emesis and/or gastric lavage. Mechanical assisted ventilation may be necessary. In severe cases, an initial period of hypoglycemia may require correction by intravenous solutions of dextrose. In some cases, an initial period of hyperglycemia has occurred during the recovery phase and has lasted for a few days. Treatment with insulin may be beneficial but should be used cautiously. 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, properly bunged, and promptly returned to a drum reconditioner or properly disposed of. This product is subject to the Chemical Diversion and Trafficking Act of 1988 and subject to specific record keeping requirements. WHMIS Classification: Class B Division 2 - Flammable Liquids;