CORCO CHEMICAL CORPORATION

Manufacturers of ACS Reagents and Semiconductor Grade Chemicals

SAFETY DATA SHEET

ACETONE

1. IDENTIFICATION

Product identifier: ACETONE

Product Code Number: 1001

Company Identification:

Corco Chemical Corporation
299 Cedar Lane
Fairless Hills, PA 19030
Phone: 215-295-5006
Fax: 215-295-0781

24 Hour Emergency Telephone Number:

CHEMTREC (U.S.): 1-800-424-9300
CHEMTREC (Outside U.S. 1-703-527-3887

Trade Name:	**ACETONE**
Synonyms:	**2-PROPANONE * Dimethyl ketone**
Chemical Formula:	(CH3)2CO
Product Use:	Process chemical, Laboratory and scientific research and development

2. HAZARD(S) IDENTIFICATION

Physical hazards	Flammable liquids	Category 2
Health hazards	Serious eye damage/eye irritation	Category 2A
	Reproductive toxicity	Category 2

Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
Specific target organ toxicity, single exposure	Category 3 narcotic effects
Specific target organ toxicity, repeated exposure	Category 2 (blood)

OSHA hazard(s) - Not classified.

Label elements

Signal word Danger

Hazard statement: Highly flammable liquid and vapor. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of damaging fertility or the unborn child. May cause damage to organs (blood) through prolonged or repeated exposure. Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Precautionary statement: Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only in a well-ventilated area. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Response: In case of fire: Use appropriate media for extinction. Eliminate all ignition sources if safe to do so. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Storage: Store in a well-ventilated place. Keep container tightly closed. store locked up.

Disposal: Dispose of contents/container to an approved incineration plant.

Hazard(s) not otherwise classified (HNOC): Static accumulating flammable liquid.

3. Composition/information on ingredients

CAS Number: 67-64-1
EC Number: 200-662-2
Index Number: 606-001-00-8
Molecular Weight: 58.08 g/mol

Ingredient	CAS Number	EC Number	Percent	Hazardous	Chemical Characterization
Acetone	67-64-1	200-662-2	99 100%	Yes	Substance

4. First-aid measures

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give Oxygen. Get medical attention.

Ingestion Aspiration hazard. If swallowed, vomiting may occur spontaneously, but DO NOT INDUCE VOMITING! If vomiting occurs, keep head below hips to prevent aspiration into lungs. Never give anything by mouth to an unconscious person. Call a physician immediately.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention.

General information: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. IF exposed or concerned: Get medical advice/attention.

5. Fire-fighting measures

Suitable extinguishing media: Water fog. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only. Alcohol resistant foam. Powder.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Fire: Extremely Flammable Liquid and Vapor! Vapor may cause flash fire.

Explosion: Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Vapors can flow along surfaces to distant ignition source and flash back. Contact with strong oxidizers may cause fire. Sealed containers may rupture when heated. This material may produce a floating fire hazard. Sensitive to static discharge.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

6. Accidental release measures

Personal Precautions, Protective Equipment and Emergency Procedures: Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Environmental Precautions and Methods and Materials for Containment and Cleaning Up: Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth,) and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

7. Handling and storage

Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Vapors may form explosive mixtures with air. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the accumulation of static charges include but are not limited to: American Petroleum Institute (API) Recommended

Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code". DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Avoid contact with eyes. Avoid contact during pregnancy/while nursing. Use personal protective equipment as required. Avoid prolonged exposure. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute.

8. Exposure controls/personal protection

Airborne Exposure Limits: OSHA Permissible Exposure Limit (PEL): 1000 ppm (TWA)
ACGIH Threshold Limit Value (TLV): 500 ppm (TWA), 750 ppm (STEL)
A4 - not classifiable as a human carcinogen

Appropriate engineering controls: Explosion-proof general and local exhaust ventilation. Provide eyewash station.

Individual protection measures, such as personal protective equipment
Eye/face protection: Chemical goggles are recommended.

Skin protection: Hand protection Wear protective gloves.
Other Wear appropriate chemical resistant clothing. Wear protective gloves.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment. Use an organic vapor respirator for concentrations exceeding the Occupational Exposure Limit.

Thermal hazards: Not available.

General hygiene considerations: When using, do not eat, drink or smoke. Avoid contact with eyes. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance: Clear, colorless, volatile liquid
Odor: Fragrant, mint-like
Odor Threshold: Not determined

pH: 7
% Volatiles by volume @ 21C (70F): 100
Boiling Point / Boiling Range: 56.5C (133F) @ 760 mm Hg
Melting point/freezing point -138.5 °F (-94.7 °C)
Initial boiling point and boiling range 132.89 °F (56.05 °C) 101.325 kPa
Flash Point: -20C (-4F) CC
Evaporation Rate (BuAC=1): ca. 7.7
Flammability: Extremely Flammable Liquid and Vapor! Vapor may cause flash fire.
Upper / Lower Flammability or Explosive Limits: Upper – 12.8 / Lower – 2.5 in air, % by volume
Vapor Pressure (mm Hg): 400 @ 39.5C (104F)
Vapor Density (Air=1): 2
Relative Density: 0.791 g/cm3 at 25 °C (77 °F)
Solubility: Miscible in all proportions in water
Partition Coefficient: n-octanol / water: log Pow: -0.24
Auto-ignition Temperature: 465C (869F)
Decomposition Temperature: No data available
Viscosity: 0.3311 mPa·s at 20°C

10. Stability and reactivity

Reactivity: Not available.
Chemical stability Risk of explosion: Stable at normal conditions. Possibility of hazardous reactions.
Hazardous polymerization: Does not occur.
Conditions to avoid: Heat, flames and sparks. Avoid temperatures exceeding the flash point.
Incompatible materials: Strong oxidizing agents. Acids.
Hazardous decomposition products: No hazardous decomposition products are known.

11. Toxicological information

Emergency Overview: DANGER! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM.

Potential Health Effects:

Inhalation: Inhalation of vapors irritates the respiratory tract. May cause coughing, dizziness, dullness, and headache. Higher concentrations can produce central nervous system depression, narcosis, and unconsciousness.

Ingestion: Swallowing small amounts is not likely to produce harmful effects. Ingestion of larger amounts may produce abdominal pain, nausea and vomiting. Aspiration into lungs can produce severe lung damage and is a medical emergency. Other symptoms are expected to parallel inhalation.

Skin Contact: Irritating due to defatting action on skin. Causes redness, pain, drying and cracking of the skin.

Eye Contact: Vapors are irritating to the eyes. Splashes may cause severe irritation, with stinging, tearing, redness and pain.

Chronic Exposure: Prolonged or repeated skin contact may produce severe irritation or dermatitis.

Aggravation of Pre-existing Conditions: Use of alcoholic beverages enhances toxic effects. Exposure may increase the toxic potential of chlorinated hydrocarbons, such as chloroform, trichloroethane.

Specific Target Organ Toxicity - Single Exposure (Globally Harmonized System:) May cause drowsiness or dizziness.

Specific Target Organ Toxicity: Repeated Exposure (Globally Harmonized System:) No data available.

Numerical Measures of Toxicity: Cancer Lists: NTP Carcinogen

Ingredient	Known	Anticipated	IARC Category
Acetone (67-64-1)	No	No	None

Acute Toxicity:
Oral rat LD50: 5800 mg/kg; Inhalation rat LC50: 50,100mg/m3
Irritation eye rabbit, Standard Draize, 20 mg severe
Investigated as a tumorigen, mutagen, reproductive effecter.

12. Ecological information

Ecotoxicity: This material is not expected to be toxic to aquatic life. The LC50/96-hour values for fish are over 100 mg/l.

Persistence and Degradability: When released into the soil, this material is expected to readily biodegrade.

Bioaccumulative Potential: This material is not expected to significantly bioaccumulate.

Mobility in Soil: When released into the soil, this material is expected to quickly evaporate. When released into the soil, this material is expected to leach into groundwater.

Other adverse effects: When released to water, this material is expected to quickly evaporate. This material has a log octanol-water partition coefficient of less than 3.0. When released into the air, this material may be moderately degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material may be moderately degraded by photolysis. When released into the air, this material is expected to be readily removed from the atmosphere by wet deposition.

13. Disposal considerations

Disposal instructions: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazardous waste code D001: Waste Flammable material with a flash point <140 F.

14. Transportation Information

UN Number: UN1090
UN Proper Shipping Name: ACETONE
Packing Group: II

DOT / IMDG / IATA

Land Transport ADR/RID and GGVS/GGVE (Cross Border / Domestic)
Transport Hazard Class(es): 3

Maritime Transport IMDG/GGVSea
Transport Hazard Class(es): 3

Marine Pollutant: No

Air Transport ICAO-TI and IATA-DGR
Transport Hazard Class(es): 3

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

Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.

15. Regulatory information

US federal regulations All components are on the U.S. EPA TSCA Inventory List.
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) Not regulated.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not on regulatory list.
CERCLA Hazardous Substance List (40 CFR 302.4)
ACETONE (CAS 67-64-1) LISTED
Superfund Amendments and Reauthorization Act of 1986 (SARA)
Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No
SARA 302 Extremely hazardous substance - No
SARA 311/312 Hazardous chemical - No
Other federal regulations
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA) - Not regulated.
Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR1310.02(b) and 1310.04(f)(2) and Chemical Code Number
ACETONE (CAS 67-64-1) 6532
Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))
ACETONE (CAS 67-64-1) 35 % weight/volumn
DEA Exempt Chemical Mixtures Code Number
ACETONE (CAS 67-64-1) 6532
Food and Drug Administration (FDA)
Not regulated.
US state regulations California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US. Massachusetts RTK - Substance List
ACETONE (CAS 67-64-1)
US. New Jersey Worker and Community Right-to-Know Act
Not regulated.
US. Pennsylvania RTK - Hazardous Substances
ACETONE (CAS 67-64-1)
US. Rhode Island RTK
ACETONE (CAS 67-64-1)
US. California Proposition 65
US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance
Not listed.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes

Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory		Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

16. Other information

Disclaimer - The information in the sheet was written based on the best knowledge and experience currently available. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Created: 8/1/14