

Section 1: Product & Company Information

Product Identifier: Acetone

Other Means of Identification

Product Number: 151750

Recommended Use and Restrictions on Use

Recommended Use: Solvent

Restrictions on Use: Industrial use only.

Manufacturer / Importer / Supplier / Distributor Information

Company Name: CORECHEM Inc.

Address: 4320 Greenway Drive
Knoxville, TN 37918
USA

Information Telephone Number: 1-865-524-4239

Fax Number: 1-865-524-3375

Website: www.corecheminc.com

Contact Person: Regulatory Manager

E-mail: regulatory@corecheminc.com

Emergency Phone Number: Chemtrec® 1-800-424-9300 / Outside USA 1-703-527-3887 (monitored 24 hours/day)

Section 2: Hazards Identification

GHS Hazard Classification(s)

In accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012).

Physical Hazard(s)

Flammable, Liquids - 2

Health Hazard(s)

(Corrosion) Damage/Irritation, Eye - 2A

Specific Target Organ Toxicity (STOT)-CNS,

Single exposure - 3

Environmental Hazard(s)

Not classified.

Label Elements

Signal Word

DANGER

Hazard Symbol(s)



Hazard Statement(s)

H225: Highly flammable liquid and vapor.

H319: Causes serious eye irritation.

H336: May cause drowsiness or dizziness.

Precautionary Statements

General

Not applicable.

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.

P241: Use explosion-proof electrical/ventilating/lighting/equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

P261: Avoid breathing dust/fume/gas/mist/vapors/spray.

P264: Wash face, hands and any exposed skin thoroughly after handling.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

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Response

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

Storage

P403 + P233: Store in a well-ventilated place. Keep container tightly closed.
P403 + P235: Store in a well-ventilated place. Keep cool.
P405: Store locked up.

Disposal

P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC)

None known.

Section 3: Composition/Information on Ingredients

Substance

Chemical Identity ²	Common Name/Synonym(s)	CAS # ³	Weight %	Impurity or Stabilizing Additive
Acetone	2-Propanone	67-64-1	100%	No

- Information regarding the composition and the percent ranges of the mixtures ingredients are not presented as it Confidential Business Information (CBI). Where a medical emergency exists (as determined by medical professional), timely disclosure of CBI is assured. The information omitted pertains to only the names of the substances and the concentration in the mixture (product) and can only be requested by a doctor/physician or Local/State/Provincial or Federal Authority.
- Non-hazardous ingredients are not presented as to protect the proprietary formula of the product.
- “—”Indicates ingredient is a mixture and contains multiple ingredients or may have no identifying CAS number.

Section 4: First-Aid Measures

General Information

Move patient to fresh air and keep them calm. Remove any contaminated clothing. Keep the patient warm and address any medical needs of the patient.

Inhalation

Remove victim to fresh air. Administer oxygen or artificial respiration if breathing is affected or stopped. Seek medical attention.

Skin Contact

Wash exposed areas with water and mild soap. Remove contaminated clothing immediately and launder before reuse. If irritation persists, seek immediate medical attention.

Eye Contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion

If swallowed, do not induce vomiting. Seek medical attention. Give activated carbon to reduce the absorption in the gastrointestinal tract.

Most important symptoms/effects, acute and delayed

Symptoms

No data available.

Indication of immediate medical attention and special treatment needed

Hazards

No data available.

Treatment

Medical treatment should be based on acetone exposure symptoms. Note: risk of acetone entering lungs due to vomiting from ingestion.

Section 5: Fire-Fighting Measures

General Fire Hazards

Product is flammable and may be ignited by heat, sparks, flames, or other sources of ignition. (e.g. static electricity, pilot lights, or mechanical/ electrical equipment) Vapors are heavier than air and may accumulate in low areas. Vapors may travel considerable distance to a source of ignition where they can flash back or explode. May create vapor/air explosion hazards, indoors, outdoors or near sewers. If container is not properly cooled, it can explode in the heat of a fire.

Suitable (and Unsuitable) Extinguishing Media

Suitable Extinguishing Media

Extinguishing powder, alcohol resistant foam, carbon dioxide, water fog

Unsuitable Extinguishing Media

Full water jet.

Specific Hazards Arising from the Chemical

Highly flammable. Explosive mixtures with air may even form at ambient temperatures. Vapors can travel to source of ignition and flash back. Products of combustion are carbon monoxide and carbon dioxide.

Special Protective Equipment and Precautions for Firefighters

Special Fire-Fighting Equipment Procedures

Use self-contained breathing apparatus and full bunker gear in fire areas. Evacuate all unprotected personnel from area. Keep containers cool with water fog to minimize swelling, take care not to spread flames with the water used for cooling.

Special Protective Equipment for Fire-Fighters

As in any fire, wear self-contained breathing apparatus pressure-demand (OSHA/NIOSH approved or equivalent) and full protective gear.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Keep all sources of ignition and hot metal surfaces away from spill or release. Evacuate all unprotected personnel from the area.

Methods and Materials for Containment and Clean-Up

Use foam on spills to minimize the vapors. Using only non-sparking tools and explosion proof equipment, collect spill on absorbent material and put into an approved container.

Notification Procedures

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions

Plug leaks if safely possible. Do not allow to enter drains, surface water, basements, or pits. When released into the environment, follow required regulatory and emergency response reporting.

Section 7: Handling and Storage

Precautions for Safe Handling

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. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Ground/bond container and receiving equipment. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using the product. Use caution when adding this material to water. See Section 8 of the SDS for Personal Protective Equipment. Avoid contact with eyes. Avoid contact with skin.

Conditions for Safe Storage, including any Incompatibilities

Vent container carefully before opening. Bond and ground all equipment when transferring from one vessel to another. The use of explosion proof equipment is recommended. Empty containers retain residue and/or vapor and may be dangerous. Do not cut, weld, braze, solder, drill, grind, or expose such containers to heat, flames, sparks, or ignition sources. Keep containers tightly closed when not in use. NFPA Class I storage.

Section 8: Exposure Controls/Personal Protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Value	Source
Acetone	TWA/PEL	1000 ppm	US OSHA Table Z-1
Acetone	TWA	500 ppm	US. ACGIH Threshold Limit Values
Acetone	STEL	750 ppm	US. ACGIH Threshold Limit Values
Acetone	OSHA PEL	750 ppm	US. ACGIH Threshold Limit Values
Acetone	IDLH	2500 ppm	US. ACGIH Threshold Limit Values

Biological Limit Values

The product does not contain any relevant quantities of hazardous materials with assigned biological limit values.

Appropriate Engineering Controls

Adequate local or mechanical to reduce vapor or mist to below the PEL or TVL. Follow accepted work practices for handling a flammable material. Do not eat, drink, or smoke in areas where this chemical is used or stored. Have eye wash stations and safety showers readily available.

Individual protection measures, such as personal protective equipment (PPE)

General Information

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

Eye/Face Protection

Wear safety glasses with side shields (or goggles) and a face shield. Wear a full-face respirator, if needed.

Skin Protection

Hand Protection

Wear appropriate chemical resistant gloves.

Other

Impervious aprons and work boots are recommended where splashing may occur.

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Respiratory Protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information

Hygiene Measures

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated footwear that cannot be cleaned. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before reuse. Avoid contact with eyes, skin, and clothing.

Section 9: Physical and Chemical Properties

Appearance:

Physical State: Liquid
Color: Colorless

Odor:

Strong ketone smell.

Odor Threshold:

No data available.

pH:

Approximately 7 in 1/1 volume with water

Melting Point/Freezing Point:

-95.35 °C (-138.4°F)

Initial Boiling Point and Boiling Range:

56°C (133°F)

Specific Gravity

0.791-0.7930 at 20/20°C

Flash Point:

-17°C (1.4°F)

Evaporation Rate (butyl acetate=1):

11.6 (Butyl acetate =1)

Flammability (solid, gas):

No data available.

Upper/Lower Limit on Flammability or Explosive Limits

Flammability Limit – Upper: 12.8%

Flammability Limit – Lower: 2.6%

Explosive Limit – Upper: No data available.

Explosive Limit – Lower: No data available.

Vapor Pressure:

at 20°C: 240hPa

at 50°C: 800hPa

Vapor Density (air =1):

2.1

Relative Density (water=1):

at 20°C: 0.79 g/ml

VOC Content

0%

Solubility(ies):

Solubility in water: Completely soluble in water.

Solubility (other): No data available.

Partition coefficient (n-octanol/water):

0.24 log Pow

Auto-Ignition Temperature:

869°F

Decomposition Temperature:

Not determined.

Viscosity:

at 20°C: 0.32 mPa*s

Other Information:

Molecular Weight: 58.09 g/mol

Formula: C₃H₆O

Section 10: Stability and Reactivity

Reactivity

Acetone reacts in the presence of bases.

Chemical Stability

Vapors form potentially explosive mixtures with air. Heavier than air, they proceed at floor level and may back flash over great distances when ignited. May become electrostatically charged.

Possibility of Hazardous Reactions

Hazardous polymerization does not occur.

Conditions to Avoid

Highly flammable material. Concentrated vapors are heavier than air. Forms explosive mixtures with air, including inside empty uncleaned containers. May produce strongly irritating chloric acetone when mixed with chloridized hydrocarbons and exposed to light.

Incompatible Materials

Attacks many plastics and rubbers. On contact with barium hydroxide, sodium hydroxide and many other alkaline materials, condensation may occur. Avoid contact with strong oxidizing agents, alkalis, and amines.

Hazardous Decomposition Products

Carbon monoxide, carbon dioxide and various hydrocarbons under combustion conditions.

Section 11: Toxicological Information

Information on routes of exposure

Ingestion: Aspiration hazard.

Inhalation: May cause respiratory tract irritation.

Skin Contact: May cause mild skin irritation including redness, burning, and drying/ cracking of the skin.

Eye Contact: Causes eye irritation including stinging, watering and redness.

Information on Toxicological Effects

Acute Toxicity (List all possible routes of exposure)

Oral

Acetone: LD50 (Mouse): 3,000 mg/kg

Dermal

Acetone: LD50 (Rat): > 15,800 mg/kg

Inhalation

Acetone: LC50 (Mouse, 4 h): 44,000 mg/m³

Repeated Dose Toxicity

No data available.

Skin Corrosion/Irritation

Contact may cause mild skin irritation including redness, burning and drying/ cracking of the skin. No harmful effects from skin absorption are expected.

Serious Eye Damage/Eye Irritation

Causes eye irritation including stinging, watering, redness which may result in corneal injury. Prolonged contact can result in chemical burns and permanent tissue damage. High vapor concentrations are irritating to the eyes.

Respiratory/Skin Sensitization

Fatigue, nausea, unconsciousness. Burning of eyes and skin.

Carcinogenicity

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

US. National Toxicology Program (NTP) Report on Carcinogens

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Germ Cell Mutagenicity

In Vitro

No mutagenic components identified.

In Vivo

No mutagenic components identified.

Reproductive Toxicity

None known.

Specific Target Organ Toxicity – Single Exposure

Vapors may cause drowsiness and dizziness. For the development of any overt signs of toxicity in humans, accidental exposures to extreme large amounts of acetone from inhalation of vapors or ingestion of liquid are necessary (e.g. several thousand ppm of acetone vapors).

Specific Target Organ Toxicity – Repeated Exposure

Not determined.

Aspiration Hazard

Not classified.

Other Effects

None known.

Section 12: Ecological Information

Ecotoxicity

Acute Hazards to the Aquatic Environment

Fish

Acetone: LC50 (*Lepomis machrochirus* (Bluegill Sunfish) 8300 mg/L, 96 h

Acetone: LC50 (*Salmo Gairdneri* (rainbow trout) 5450 mg/L 96 HR @ 12 degree C (95% Confidence limit 4740-6330 mg/L) wt. 1.0 g

Aquatic Invertebrates

Acetone: LC50 (*Daphnia Magna* (Water Flea), 48 h): 10 mg/l

Toxicity to Aquatic Plants

Acetone: NOEC (*Microcystics Aeruginosa*, 24 h): 530 mg/l/8 d

Acetone: NOEC (*Prorocentrum Minimum*, 96 h): 430 mg/l

Chronic Hazards to the Aquatic Environment

Fish

No data available.

Aquatic Invertebrates
No data available.

Toxicity to Aquatic Plants
No data available.

Persistence and Degradability
Biodegradation
Readily biodegradable.
BOD/COD Ratio
No data available.

Bioaccumulative Potential
Bioconcentration Factor (BCF)
3 (Low bioaccumulation potential)
Partition Coefficient n-octanol / water (log Kow)
No data available.

Mobility in Soil
Expected to have very high mobility in soils based upon an estimated Koc value of 1. Volatilization from dry soil surfaces is expected based upon the vapor pressure of this compound. Volatilization from moist soil surfaces is also expected based upon the measured Henry's Law constant of 1.87×10^{-5} atm-cu m/mol.

Other Adverse Effects
Do not allow to enter into ground water, surface water, or drains.

Section 13: Disposal Considerations

Disposal Instructions
Follow Federal, state, and local regulations. Consult disposal expert. Can be disposed of by controlled incineration. May be reacted with component "B" and disposed of as trash. Excessive quantities should not be permitted to enter drains, sewers, or water courses. Empty containers should be air dried before disposing. RCRA Waste codes of D001 and U002 if discarded as uncontaminated liquid. Reportable quantity is 5000 pounds or 758 gallons.

Contaminated Packaging
Handle contaminated packages in the same way as the substance itself. Emptied containers may retain hazardous residue and explosive vapors. Keep away from heat, sparks, and flames. Do not cut, puncture, or weld on or near this container. Follow label warnings until container is thoroughly cleaned or destroyed.

Section 14: Transportation Information

US Department of Transportation (DOT)
UN Number: UN1090
UN Proper Shipping Name: Acetone
Technical Name:
Hazard Class: 3
Subsidiary Hazard Risk: -
Packing Group: II
DOT Label/Placard Exemptions: Not determined
Special Provisions: IB2, T4, TP1
Packaging Exceptions: 49CFR 173.150
Packaging Non-Bulk: 49CFR 173.202
Packaging Bulk: 49CFR 173.242
Reportable Quantity (RQ): 5,000lb (2,270kg)
Marine Pollutant: No
Poison Inhalation Hazard: No
Special precautions for user: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
Emergency Response Guidebook (ERG) #: 127

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

Section 15: Regulatory Information

US Federal Regulations

Toxic Substance Control Act (TSCA), Chemical Substance Inventory, Section 8(b)
This product or ingredient(s) are listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substance List (40 CFR 302.4)
The following chemical(s) in this material are subject to reporting levels established by CERCLA:
Acetone (CAS# 67-64-1)

Clean Air Act (CAA), Section 112(r)
No chemical(s) in this material are subject to the reporting requirements of CAA.

Emergency Planning and Community Right-To-Know Act (EPCRA)
EPCRA 302 Extremely Hazardous Substance

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 302.

EPCRA 304 Emergency Response Notification

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 304.

EPCRA 311/312 Emergency and Hazardous Materials Reporting

Fire Hazard: Yes
Sudden Release of Pressure: No
Reactive: No
Acute (Immediate) Health Hazard: Yes
Chronic (Delayed) Health Hazard: No

EPCRA 313 Toxic Chemical Release Inventory (TRI) Reporting

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

US State Regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Important Note: Due to the changing nature of regulatory requirements, the information in this document should NOT be considered all-inclusive or authoritative. Users should make their own investigations to determine the suitability of the information for their particular purposes. International, Federal, State and Local regulations should be consulted to determine compliance with all required reporting requirements.

Section 16: Other Information

Hazardous Materials Identification System (HMIS®) Classification

Health Hazard: 2

Chronic Health Hazard: /

Flammability: 3

Physical Hazard: 0

(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

National Fire Protection Association (NFPA 704) Rating

Health Hazard: 1

Fire Hazard: 3

Reactivity Hazard: 0

Special: N/A

(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

Prepared By: Regulatory Manager

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Key to Abbreviations and Acronyms

ATE - Acute Toxicity Estimate
BCF - Bioconcentration Factor
EC50 - Effective concentration, 50%
IDHL - Immediately Dangerous to Life and Health
Kg - Kilogram
l - Liter
lb - Pound
LC50 - Lethal Concentration, 50%
LD50 - Lethal Dose, 50%
mg - milligram
ml - milliliter
N/A - Not Applicable
N/D - Not Determined
PEL - Permissible Exposure Limit
REL - Recommended Exposure Limit
STEL - Short-term Exposure Limit
TWA - Time weighted average

ACGIH - American Conference of Industrial Hygienists
AIHA - American Industrial Hygiene Association
BEI - Biological Exposure Indices
CAS - Chemical Abstracts Service
DOT - US Department of Transportation
EPA - US Environmental Protection Agency
GHS - Globally Harmonized System of Classification and Labelling of Chemicals
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
IBC - Intermediate Bulk Container
IMDG - International Maritime Dangerous Goods
NIOSH - National Institute for Occupational Safety and Health
NTP - National Toxicology Program
OSHA - US Occupational Health and Safety Administration
SARA - US EPA Superfund Amendments and Reauthorization Act
TSCA - US EPA Toxic Substances Control Act
UN - United Nations

References

HSDB® - Hazardous Substances Data Bank

Disclaimer

The information in this SDS was obtained from sources which we believe are reliable. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS. The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

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