ESSENTIAL CHEMISTRY. INNOVATIVE SOLUTIONS.

SAFETY DATA SHEET

Print Date: September 19, 2025

Section 1: Product & Company Information

Product Identifier: **Cyclohexanone**

Other Means of Identification
Product Number: 144525

Recommended Use and Restrictions on Use
Recommended Use: Laboratory and analytical use.
Restrictions on Use: Do not use for private purposes (household). Food, drink and animal feeding stuffs.

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 - 3

Health Hazard(s)
Acute Toxicity, Oral - 4
Acute Toxicity, Dermal - 4
Acute Toxicity, Inhalation - 4
Corrosion/Irritation, Skin - 2
(Corrosion)Damage/Irritation, Eye - 1

Environmental Hazard(s)
Not classified.

Label Elements
Signal Word
DANGER

Hazard Symbol(s)

Hazard Statement(s)
H226: Flammable liquid and vapor.
H302 + H312 + H332: Harmful if swallowed, in contact with skin or if inhaled.
H315: Causes skin Irritation.
H318: Causes serious eye damage.

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.
P270: Do not eat, drink, or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
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.
P310: Immediately call a POISON CENTER or doctor/physician.
P330: Rinse mouth.
P332 + P313: If skin irritation occurs: Get medical advice/attention.
P361: Remove/Take off immediately all contaminated clothing.
P362: Take off contaminated clothing and wash before reuse.
P370 + P378: In case of fire: Use suitable extinguishing media for extinction.

Storage

P403 + P235: Store in a well-ventilated place. Keep cool.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.
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
Cyclohexanone		108-94-1	75 - 100 %	No

1. Information regarding the composition and the percentage ranges of the mixtures ingredients are not presented as its 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.
2. Non-hazardous ingredients are not presented as to protect the proprietary formula of the product.
3. "— "Indicates ingredient is a mixture and contains multiple ingredients or may have no identifying CAS number.

Section 4: First-Aid Measures

General Information

Consult a physician. Show this safety data sheet to the doctor in attendance.

Inhalation

Rescuers should put on appropriate protective gear. Remove from area of exposure. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Keep victim warm. Get immediate medical attention. To prevent aspiration, keep head below knees.

Skin Contact

Immediately wash with soap and water. Get medical attention promptly if irritation develops or persists. Remove contaminated shoes and clothes and clean before reuse.

Eye Contact

Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately. In case of irritation from airborne exposure, move to fresh air. Get medical attention immediately.

Ingestion

Small amounts which accidentally enter mouth should be rinsed out until taste of it is gone. If swallowed, do NOT induce vomiting. Get medical attention.

Most important symptoms/effects, acute and delayed

Symptoms

Irritation, Nausea, Vomiting, Gastrointestinal complaints, Headache, Vertigo, Dyspnoea, Risk of serious damage to eyes, Risk of blindness

Indication of immediate medical attention and special treatment needed

Hazards

No data available.

Treatment

Give sodium sulfate as laxative (1 tablespoon in 1 glass of water).

Section 5: Fire-Fighting Measures

General Fire Hazards

In case of fire and/or explosion do not breathe fumes. Use water spray to keep fire-exposed containers cool. Move containers from the fire area if you can do so without risk. Water may be ineffective in fighting fire. Fight fire from a protected location.
Flammable liquid and vapor.

Suitable (and Unsuitable) Extinguishing Media

Suitable Extinguishing Media

Co-ordinate firefighting measures to the surroundings! Water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO_2).

Unsuitable Extinguishing Media

Water jet.

Specific Hazards Arising from the Chemical

Combustible. In case of insufficient ventilation and/or in use, may form flammable/explosive vapor air mixture. Solvent vapors are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapors are heavier than air, spread along floors and form explosive mixtures with air. Vapors may form explosive mixtures with air.

Special Protective Equipment and Precautions for Firefighters

Special Fire-Fighting Equipment Procedures

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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. Avoid use of solid water streams. Water may be ineffective. Water spray to cool containers or protect personnel. Use with caution. Water runoff can cause environmental damage. Dike and collect water used to fight fire.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.
Wear appropriate personal protective equipment. (See Exposure Controls / Personal Protection Section.)Eliminate all ignition sources. Prevent additional discharge of material if able to do so safely. Do not touch or walk through spilled material. Avoid runoff into storm sewers and ditches which lead to waterways. Ventilate spill area. Stay upwind of spill. Collect spilled materials for disposal. Use only non-combustible material for clean-up. Use clean, non-sparking tools to collect absorbed materials. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container.

Methods and Materials for Containment and Clean-Up

Collect and pump off spills. Cover drains. Observe material restrictions. Take up with liquid-absorbent material. Dispose of properly. Clean up affected area.

Notification Procedures

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

Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Section 7: Handling and Storage

Precautions for Safe Handling

Use only in a well ventilated area. Avoid breathing vapor, fumes or mist. Avoid contact with eyes, skin, and clothing. Material accumulates static charge (ignition source). Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Always open containers slowly to allow any excess pressure to vent. Follow all MSDS/label precautions even after containers are emptied because they may retain product residues.

Conditions for Safe Storage, including any Incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep away from heat, sparks, and flame.

Section 8: Exposure Controls/Personal Protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Value	Source

Cyclohexanone	TWA	20 ppm	US. ACGIH Threshold Limit Values- TWA
Cyclohexanone	STEL	50 ppm	US. ACGIH Threshold Limit Values- STEL
Cyclohexanone	TWA	25 ppm 100 mg/m^3	NIOSH
Cyclohexanone	TWA	50 ppm	US OSHA – Table Z-1

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

Appropriate Engineering Controls
Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

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
Use equipment for eye protection tested and approved under government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles.

Skin Protection

Hand Protection
Wear appropriate chemical resistant gloves.

Other
Flame retardant antistatic protective clothing. Wear gloves to prevent contact with the skin. Wear protective gear as needed - apron, suit, boots.

Respiratory Protection
Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Hygiene Measures
Do not eat, drink, or smoke in areas where this material is used. Avoid breathing vapors. Remove contaminated clothing and wash before reuse. Wash thoroughly after handling. Wash hands before eating.

Section 9: Physical and Chemical Properties

Appearance:
Physical State: Liquid
Color: Colorless to light yellow
Odor: No data available.
Odor Threshold: No data available.
pH: 7
Melting Point/Freezing Point: -31 °C
Initial Boiling Point and Boiling Range: 154.3 °C 309.7 °F at 1,013 hPa - (ECHA)
Flash Point: 44 °C (111 °F) - closed cup
Evaporation Rate (butyl acetate=1)**:** No data available.
Flammability (solid, gas): No data available.
Upper/Lower Limit on Flammability or Explosive Limits
Flammability Limit – Upper: No data available.
Flammability Limit – Lower: No data available.
Explosive Limit – Upper: 9.4
Explosive Limit – Lower: 1.3
Vapor Density (air =1)**:** Heavier than air
Vapor Pressure: ca.7 hPa at 30 °C (86 °F)
Relative Density (water=1)**:** 0.947 g/cm3
Solubility(ies):
Solubility in water: Slight.
Partition coefficient (n-octanol/water): log Pow: 0.86 at 25 °C (77 °F) - Bioaccumulation is not expected.
Auto-Ignition Temperature: 420 °C (788 °F) at 1,013 hPa
Decomposition Temperature: No data available.
Viscosity: No data available.

Other Information:
Molecular Weight: 98.15 g/mol
Formula: C6H10O

Section 10: Stability and Reactivity

Reactivity
It's a reactive substance. Risk of ignition.

Chemical Stability
The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Possibility of Hazardous Reactions
Violent reaction with: Strong oxidiser, Mineral acids, Hydrogen peroxide, and Nitric acid.

Conditions to Avoid
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Incompatible Materials
Prevent contact with strong oxidizing agents. Keep away from strong bases. Keep away from acids.

Hazardous Decomposition Products
During combustion carbon monoxide may be formed. During combustion carbon dioxide may be formed.

Section 11: Toxicological Information

Information on routes of exposure

Ingestion: Harmful if swallowed. Swallowing may result in irritation or burns of the mouth.
Inhalation: Harmful if inhaled. May be very irritating or corrosive to respiratory system.
Skin Contact: Harmful in contact with skin. Causes skin irritation. Server exposure may cause blistering. May cause redness and pain. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis. (rash).
Eye Contact: Causes serios eye damage. May cause tearing, redness, and discomfort.

Information on Toxicological Effects

Acute Toxicity (List all possible routes of exposure)

Oral
LD50 - Rat - 1,400 mg/kg

Dermal
LD50 - Rabbit - 1,100 mg/kg

Inhalation
LC50 - Rat - 4h - > 6.2 mg/l

Repeated Dose Toxicity

Skin Corrosion/Irritation
Causes skin irritation.

Serious Eye Damage/Eye Irritation
Causes serious eye damage.

Respiratory/Skin Sensitization
Not a skin sensitizer.

Carcinogenicity

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans
Cyclohexanone – Group 3: Not classifiable as to its carcinogenicity to humans.

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
None known.

Specific Target Organ Toxicity – Repeated Exposure
None known.

Aspiration Hazard
Not classified.

Other Effects
CHRONIC HAZARDS: Animal carcinogen.

Section 12: Ecological Information

Ecotoxicity

Acute Hazards to the Aquatic Environment

Fish
LC50: Pimephales promelas (fathead minnow) 650 – 732 mg/l - 96 h

Aquatic Invertebrates
EC50: > 100 mg/L – 48h

Toxicity to Aquatic Plants
No data available.

Chronic Hazards to the Aquatic Environment

Fish
No data available.

Aquatic Invertebrates
EC50: >1,000 mg/L – ECHA – 30min

Toxicity to Aquatic Plants
No data available.

Persistence and Degradability

Biodegradation
Theoretical Oxygen Demand: 2.608 mg/mg
Theoretical Carbon Dioxide: 2.69 mg/mg.

BOD/COD Ratio
No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)
Does not significantly accumulate in organisms.

Partition Coefficient n-octanol / water (log Kow)
No data available.

Mobility in Soil
No data available

Other Adverse Effects
No data available.

Section 13: Disposal Considerations

Disposal Instructions
Wear appropriate personal protective equipment. (See Exposure Controls / Personal Protection Section.)Eliminate all ignition sources. Prevent additional discharge of material if able to do so safely. Do not touch or walk through spilled material. Avoid runoff into storm sewers and ditches which lead to waterways. Ventilate spill area. Stay upwind of spill. Collect spilled materials for disposal. Use only non-combustible material for clean-up. Use clean, non-sparking tools to collect absorbed materials. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container.

Contaminated Packaging
Only packaging's which are approved may be used. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

Section 14: Transportation Information

US Department of Transportation (DOT)

UN Number: UN1915
UN Proper Shipping Name: Cyclohexanone – Combustible Liquid
Technical Name: -
Hazard Class: 3

Subsidiary Hazard Risk:	-
Packing Group:	III
DOT Label/Placard Exemptions:	Not determined
Special Provisions:	B1, IB3, T2, TP1
Packaging Exceptions:	49CFR 173.150
Packaging Non-Bulk:	49CFR 173.203
Packaging Bulk:	49CFR 173.242
Reportable Quantity (RQ):	5000lbs
Marine Pollutant:	No
Poison Inhalation Hazard:	No
Special precautions for user:	Transport within the 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)

No chemical(s) in this material are subject to the reporting requirements of CERCLA.

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:	Yes

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 the 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 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:	**2**
Physical Hazard:	**0**
Personal Protection:	**X**

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

National Fire Protection Association (NFPA 704) Rating

Health Hazard:	**2**
Fire Hazard:	**2**
Reactivity Hazard:	**0**
Special:	**COR**

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

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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

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