ESSENTIAL CHEMISTRY. INNOVATIVE SOLUTIONS.

SAFETY DATA SHEET

Print Date: April 9, 2025

Section 1: Product & Company Information

Product Identifier: **Methyl Ethyl Ketone (All Grades, ACS Grade)**

Other Means of Identification
Product Number: 151752
102013

Recommended Use and Restrictions on Use
Recommended Use: Reagent for analysis
Restrictions on Use: Not known.

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 dizziness or drowsiness

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.

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.

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)

Repeated exposure may cause skin dryness or cracking.

Section 3: Composition/Information on Ingredients

Substance

Chemical Identity [2]	Common Name/Synonym(s)	CAS # [3]	Weight %	Impurity or Stabilizing Additive
Methyl Ethyl Ketone	MEK	78-93-3	99.5 - 100%	No

1. Information regarding the composition and the percentage 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.
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

Show this material safety data sheet to the doctor in attendance.

Inhalation

Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur.

Skin Contact

Take off immediately all contaminated clothing. Rinse skin with water/ shower.

Eye Contact

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.

Ingestion

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Most important symptoms/effects, acute and delayed

Symptoms

Practically non-toxic if swallowed (LD50 oral, rat > 2000 mg/kg). Not irritant to skin. Repeated exposure may cause skin dryness or cracking. May cause drowsiness or dizziness. Causes serious eye irritation. Caution! Substance is absorbed through the skin.
Symptoms/effects after inhalation: Dry/sore throat. Coughing. EXPOSURE TO HIGH CONCENTRATIONS: Nausea. Central nervous system depression. Headache. Dizziness. Drowsiness. Coordination disorders. Disturbances of consciousness. Mental confusion. Respiratory difficulties.
Symptoms/effects after skin contact: Red skin.
ON CONTINUOUS EXPOSURE/CONTACT: Dry skin. Cracking of the skin.
Symptoms/effects after eye contact: Eye irritation.
Symptoms/effects after ingestion: Nausea. Vomiting. Diarrhea.
AFTER INGESTION OF HIGH QUANTITIES: Symptoms similar to those listed under inhalation. Risk of aspiration pneumonia.
Chronic symptoms: Dry skin. Itching. Skin rash/inflammation.

Indication of immediate medical attention and special treatment needed

Hazards

No data available.

Treatment

Treat symptomatically.

Section 5: Fire-Fighting Measures

General Fire Hazards

Highly flammable liquid and vapor. In case of fire and/or explosion do not breathe fumes.

Suitable (and Unsuitable) Extinguishing Media

Suitable Extinguishing Media

Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable Extinguishing Media

Water (quick-acting extinguisher, reel); risk of puddle expansion. Water; risk of puddle expansion.

Specific Hazards Arising from the Chemical

Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance. Carbon oxides and Combustible. Pay attention to flashback. Vapors are heavier than air and may spread along floors. Development of hazardous combustion gases or vapors possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

Explosion hazard:

DIRECT EXPLOSION HAZARD: Gas/vapor explosive with air within explosion limits.

INDIRECT EXPLOSION HAZARD: May be ignited by sparks.

Special Protective Equipment and Precautions for Firefighters

Special Fire-Fighting Equipment Procedures

Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat. Do not enter fire area without proper protective equipment, including respiratory protection.

Special Protective Equipment for Fire-Fighters

Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Advice for non-emergency personnel: Do not breathe vapors or 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.

Methods and Materials for Containment and Clean-Up

Contain released product, collect/pump into suitable containers. Plug the leak, cut off the supply. Dam up the liquid spill. Try to reduce evaporation. Measure the concentration of the explosive gas-air mixture. Dilute/disperse combustible gas/vapor with water curtain. Provide equipment/receptacles with earthing. Do not use compressed air for pumping over spills. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.

Notification Procedures

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

Environmental Precautions

Do not let product enter drains. Risk of explosion.

Section 7: Handling and Storage

Precautions for Safe Handling

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

Conditions for Safe Storage, including any Incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flames and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the national regulations. Store in accordance with local regulations.

Section 8: Exposure Controls/Personal Protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Value	Source
Methyl Ethyl Ketone	TWA	75 ppm	US. ACGIH Threshold Limit Values
Methyl Ethyl Ketone	STEL	150 ppm	US. ACGIH Threshold Limit Values
Methyl Ethyl Ketone	TWA	200 ppm 590 mg/m3	US OSHA Table Z-1
Methyl Ethyl Ketone	ST	300 ppm 885 mg/m3	USA. NIOSH
Methyl Ethyl Ketone	TWA	200 ppm 590 mg/m3	USA. NIOSH

Biological Limit Values

Chemical Identity	CAS #	Parameter	Value	Biological Specimen	Source
Methyl Ethyl Ketone	78-93-3	MEK	2 mg/l (Urine)	Urine	ACGIH – Biological Exposure Indices (BEI)
	Remarks: Sampling Time: End of Shift				

Appropriate Engineering Controls

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance. Showers, Eyewash stations, Ventilation systems.

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.

Skin Protection

Hand Protection

Wear suitable gloves. Impervious gloves.

Other

Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

Respiratory Protection

Required when vapors/aerosols are generated.

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, clear
Odor:	Sweet, acetone odor.
Odor Threshold:	No data available.
pH:	No data available.
Melting Point/Freezing Point:	-87 °C (-125 °F)
Initial Boiling Point and Boiling Range:	80 °C 176°F at 1,013 hPa
Flash Point (Closed Cup)**:**	-9 °C Closed cup.
Evaporation Rate (butyl acetate=1)**:**	6
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:	11 %(V)
Explosive Limit – Lower:	1 %(V)
Vapor Pressure:	104 hPa at 20 °C (68 °F)
Vapor Density (air =1)**:**	2.49 - (Air = 1.0)
Relative Density (gas air mixture)**:**	0.81 (20 °C)
Solubility(ies):	
Solubility in water:	Soluble in water

Solubility (other):	Miscible in Ether, Miscible with Acetone, Miscible in Benzene, Miscible with Ethanol, Miscible with Chloroform, Miscible with many organic solvents, Soluble in Oils
Partition coefficient (n-octanol/water):	log Pow: 0.3 at 40 °C (104 °F)
Auto-Ignition Temperature:	No data available.
Decomposition Temperature:	No data available.
Viscosity:	No data available.

Other Information:

Molecular Weight:	72.11 g/mol
Formula:	No data available.
Minimum ignition energy	0.53 mJ
Specific Conductivity	36000 pS/m
Saturation concentration	311 g/m^3
VOC Content	100%
Other properties	Gas/vapor heavier than air at 20°C. Clear. Volatile. May generate electrostatic charges.

Section 10: Stability and Reactivity

Reactivity

Highly flammable liquid and vapor.

Chemical Stability

The product is chemically stable under standard ambient conditions (room temperature).

Possibility of Hazardous Reactions

Risk of exothermic reaction with: Oxidizing agents, alkali hydroxides, chromium(VI) oxide

Risk of explosion with: hydrogen peroxide, Nitric acid, conc. sulfuric acid

Conditions to Avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

Incompatible Materials

Oxidizing agents, Strong reducing agents.

Hazardous Decomposition Products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11: Toxicological Information

Information on routes of exposure

Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be harmful if swallowed.

Inhalation: May cause irritation of respiratory tract. May cause drowsiness or dizziness.

Skin Contact: Causes skin irritation.

Eye Contact: Irritating to eyes. (Based on components). Causes serious eye irritation.

Information on Toxicological Effects

Acute Toxicity (List all possible routes of exposure)

Oral

LD50 - 2193 mg/kg body weight (Equivalent or similar to OECD 423, Rat, Male / female, 14 day(s))

ATE US - 2193 mg/kg body weight

Dermal

LD50 > 8050 ml/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, 14 day(s))

Inhalation

LC50 Inhalation - Mouse - 4 h - 32,000 mg/m3 - vapor

Repeated Dose Toxicity

No data available.

Skin Corrosion/Irritation

Skin - Rabbit

Result: No skin irritation - 4 h

Serious Eye Damage/Eye Irritation

Eyes - Rabbit

Result: Severe irritations

Respiratory/Skin Sensitization

Buehler Test - Guinea pig
Result: negative

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

May cause respiratory irritation. May cause drowsiness or dizziness.

Specific Target Organ Toxicity – Repeated Exposure

Respiratory system, Eyes, Skin, central nervous system.

Aspiration Hazard

May be harmful if swallowed and enters airways.

Other Effects

No data available.

Section 12: Ecological Information

Ecotoxicity

Acute Hazards to the Aquatic Environment

Fish

static test LC50 - 2973 mg/l (OECD 203: 96 h, Pimephales promelas, Fresh water, GLP)

Aquatic Invertebrates

static test EC50 - 308 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Fresh water, Locomotor effect)

Toxicity to Aquatic Plants

static test ErC50 - 1220 mg/l (OECD 201: Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Fresh water, GLP)

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

Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water.

BOD/COD Ratio

BOD - 2.03 O_2/g
COD – 2.31 O_2/g
ThOD – 2.44 O_2/g

Bioaccumulative Potential

Bioconcentration Factor (BCF)

No data available on bioaccumulation.

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

Do not discharge into drains or the environment. Dispose of at authorized waste collection point. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Disposal must be done according to official regulations.

Contaminated Packaging

Empty containers pose a potential fire and explosion hazard. Do not cut, puncture of weld containers.

Section 14: Transportation Information

US Department of Transportation (DOT)

UN Number:	UN1193
UN Proper Shipping Name:	Methyl ethyl ketone
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):	5000lb (2270kg)
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)

The following chemical(s) in this material are subject to reporting levels established by CERCLA:

Methyl Ethyl Ketone (CAS# 7722-84-1) – 5,000lb

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

National Fire Protection Association (NFPA 704) Rating

Health Hazard: 2
Fire Hazard: 3
Reactivity Hazard: 0
Special: N/A
(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

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Sections Revised: 4-13

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.