

**Section 1: Product & Company Information**

**Product Identifier:** Di-isobutyl Ketone

**Other Means of Identification**

Product Number: No data available.

**Recommended Use and Restrictions on Use**

Recommended Use: No data available.

Restrictions on Use : No data available.

**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, Inhalation - 1

(Corrosion)Damage/Irritation, Eye - 2A

Specific Target Organ Toxicity (STOT)-Respiratory Irritation, Single exposure - 3

**Environmental Hazard(s)**

Not classified.

**Label Elements**

**Signal Word**

**DANGER**

**Hazard Symbol(s)**



**Hazard Statement(s)**

H226: Flammable liquid and vapor.

H319: Causes serious eye Irritation.

H330: Fatal if inhaled.

H335: May cause respiratory Irritation.

**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.

P260: Do not breathe dust/fume/gas/mist/vapors/spray.

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.

P284: Wear respiratory 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.  
 P310: Immediately call a POISON CENTER or doctor/physician.  
 P312: Call a POISON CENTER or doctor/physician if you feel unwell.  
 P320: Specific treatment is urgent (see supplemental first aid instructions on this label).  
 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)**

None known.

**Section 3: Composition/Information on Ingredients**

**Mixture**

Chemical Identity <sup>2</sup>	Common Name/Synonym(s)	CAS # <sup>3</sup>	Weight %	Impurity or Stabilizing Additive
Di-Isobutyl Ketone; 2,6-Dimethyl-4-Heptanone; 4,6-Dimethyl-2-Heptanone	DIBK	108-83-8	75-100	No
4-Methyl-2-Pentanone	-	108-10-1	10-25	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**

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Wash contaminated clothing before reuse.

**Inhalation**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Skin Contact**

Take off immediately all contaminated clothing. Wash off IMMEDIATELY with plenty of water for at least 15-20 minutes. Get medical attention immediately! Wash clothing separately before reuse. Destroy or thoroughly clean contaminated shoes.

**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**

Call a physician or poison control center immediately. Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

**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**

No data available.

**Section 5: Fire-Fighting Measures**

**General Fire Hazards**

Flammable liquid and vapor.

**Suitable (and Unsuitable) Extinguishing Media**

**Suitable Extinguishing Media**

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

**Unsuitable Extinguishing Media**

No data available.

### Specific Hazards Arising from the Chemical

May cause flash fire or explosion. Vapors can travel to a source of ignition and flash back. 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. Also, do not reuse container without commercial cleaning or reconditioning.

### Special Protective Equipment and Precautions for Firefighters

#### Special Fire-Fighting Equipment Procedures

Use water with caution. Material will float and may ignite on surface of water. Water may be ineffective in fighting the fire. 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.

#### 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

Use personal protective equipment. See Section 8 of the SDS for Personal Protective Equipment. Keep unauthorized personnel away. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Evacuate area.

### Methods and Materials for Containment and Clean-Up

For large spillage: flush spill area with water spray. 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.

### Notification Procedures

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

### Environmental Precautions

Avoid runoff into storm sewers and ditches which lead to waterways.

## 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

Keep away from heat, sparks, and flame. Store containers in a cool, well ventilated place. Keep container closed when not in use. Protect from direct sunlight.

## Section 8: Exposure Controls/Personal Protection

### Control Parameters

#### Occupational Exposure Limits

Chemical Identity	Type	Value	Source
Di-Isobutyl Ketone; 2,6-Dimethyl-4-Heptanone; 4,6-Dimethyl-2-Heptanone	TWA	25 ppm	US. ACGIH Threshold Limit Values
	PEL-TWA	25 ppm	US OSHA Table Z-1
4-Methyl-2-Pentanone	TWA	20 ppm	US. ACGIH Threshold Limit Values
	STEL	75 ppm	US. ACGIH Threshold Limit Values
	PEL-TWA	100 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

No data 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

Wear appropriate chemical resistant clothing.

## 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:

Typical

### Odor Threshold:

No data available.

### pH:

No data available.

### Melting Point/Freezing Point:

No data available.

### Initial Boiling Point and Boiling Range:

325 °F

### Flash Point:

120 °F

### Evaporation Rate (butyl acetate=1):

0.2

### 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: 7.1 vol%

Explosive Limit – Lower: 0.8 vol%

### Vapor Pressure:

No data available.

### Vapor Density (air =1):

4.9

### Relative Density (water=1):

No data available.

### Solubility(ies):

Solubility in water: Negligible

Solubility (other): No data available.

### Partition coefficient (n-octanol/water):

No data available.

### Auto-Ignition Temperature:

No data available.

### Decomposition Temperature:

No data available.

### Viscosity:

No data available.

### Other Information:

Molecular Weight: No data available.

Formula: No data available.

## Section 10: Stability and Reactivity

### Reactivity

No data available.

### Chemical Stability

No data available.

### Possibility of Hazardous Reactions

No data available.

### Conditions to Avoid

Avoid impact, friction, heat, sparks, flame, and source of ignition. Minimize exposure to air.

### Incompatible Materials

Prevent contact with strong oxidizing agents.

### Hazardous Decomposition Products

During combustion carbon monoxide may be formed. During combustion carbon dioxide may be formed. Forms peroxides of unknown stability.

## Section 11: Toxicological Information

### Information on routes of exposure

**Ingestion:** Expected to be a low ingestion hazard.

**Inhalation:** May be irritating to the respiratory system. May cause dizziness and drowsiness.

**Skin Contact:** Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

**Eye Contact:** No significant health hazard identified.

### Information on Toxicological Effects

#### Acute Toxicity (List all possible routes of exposure)

##### Oral

Di-Isobutyl Ketone; 2,6-Dimethyl-4-Heptanone; 4,6-Dimethyl-2-Heptanone: LD50: > 3,200 mg/kg

4-Methyl-2-Pentanone: LD50: > 2,080 mg/kg

**Dermal**

Di-Isobutyl Ketone; 2,6-Dimethyl-4-Heptanone; 4,6-Dimethyl-2-Heptanone: LD50: > 2,000 mg/kg  
4-Methyl-2-Pentanone: LD50: > 2,000 mg/kg

**Inhalation**

Di-Isobutyl Ketone; 2,6-Dimethyl-4-Heptanone; 4,6-Dimethyl-2-Heptanone: LC50: > 1,979 mg/l  
4-Methyl-2-Pentanone: LD50: 16.4 mg/l

**Repeated Dose Toxicity**

No data available.

**Skin Corrosion/Irritation**

No data available.

**Serious Eye Damage/Eye Irritation**

No data available.

**Respiratory/Skin Sensitization**

No data available.

**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 data available.

**In Vivo**

No data available.

**Reproductive Toxicity**

No data available.

**Specific Target Organ Toxicity – Single Exposure**

No data available.

**Specific Target Organ Toxicity – Repeated Exposure**

No data available.

**Aspiration Hazard**

No data available.

**Other Effects**

No data available.

**Section 12: Ecological Information**

**Ecotoxicity**

**Acute Hazards to the Aquatic Environment**

**Fish**

No data available.

**Aquatic Invertebrates**

No data available.

**Toxicity to Aquatic Plants**

No data available.

**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**

There are no data on the degradability of this product.

**BOD/COD Ratio**

No data available.

#### 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

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. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

#### 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: UN1157  
UN Proper Shipping Name: Di-Isobutyl Ketone  
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): -  
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) #: 128

*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:

4-Methyl-2-Pentanone (CAS# 108-10-1)

##### 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: No  
Chronic (Delayed) Health Hazard: No

###### EPCRA 313 Toxic Chemical Release Inventory (TRI) Reporting

The following chemical(s) in this material are subject to reporting levels established by SARA Title III, Section 313:  
4-Methyl-2-Pentanone (CAS# 108-10-1)

## 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: 1

Chronic Health Hazard: /

Flammability: 2

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: 2

Reactivity Hazard: 0

Special: N/A

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

Prepared By: Regulatory Manager

Version #: 001

Issue Date: August 14, 2015

Revision Date: -

Revisions: -

### 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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