

SAFETY DATA SHEET

Preparation Date: 1/29/2016

Revision Date: 1/29/2016

Revision Number: G1

1. IDENTIFICATION

Product identifier

Product code: P1019
Product Name: 2-PENTANONE

Other means of identification

Synonyms: Ethyl acetone
 MPK
 Methyl propyl ketone
 Methyl-n-propyl ketone
 Methyl-propyl-cetone (French)
 Methylpropyl ketone
 Metylopropyloketon (Polish)

CAS #: 107-87-9
RTECS # SA7875000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Solvent.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000

Order Online At: <https://www.spectrumchemical.com>

Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (single exposure)	Category 3
Flammable liquids	Category 2

Label elements

Danger

Hazard statements

Harmful if swallowed
Causes skin irritation
Causes serious eye irritation
May cause respiratory irritation. May cause drowsiness or dizziness
Highly flammable liquid and vapor



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

May be harmful if inhaled

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/./? /equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Keep cool
Wear protective gloves
Wear eye/face protection

Precautionary Statements - Response

In case of fire: Use CO₂, dry chemical, or foam to extinguish.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
If skin irritation occurs: Get medical advice/attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

Precautionary Statements - Storage

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

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
2-Pentanone 107-87-9	107-87-9	100

4. FIRST AID MEASURES

First aid measures

General Advice:

Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126)

Skin Contact:

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact:

Flush eyes with water for 15 minutes. Get medical attention.

Inhalation:

Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

Ingestion:

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms

Causes eye irritation. Causes skin irritation. Irritating to respiratory system. Central nervous system effects. Drowsiness. Dizziness. Headache. Lightheadedness. Fainting. May cause nausea and vomiting. May cause digestive tract irritation. Coughing and wheezing. Dyspnea (Shortness of breath and difficulty breathing).

Indication of any immediate medical attention and special treatment needed

Notes to Physician:

Treat symptomatically

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media:

Carbon dioxide (CO₂). Dry chemical. Alcohol-resistant foam. Water spray.

Unsuitable Extinguishing Media:

Do not use a solid (straight) water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Hazardous Combustion Products:

Carbon monoxide; Carbon dioxide

Specific hazards:

Flammable
May be ignited by heat, sparks or flames
Vapor may travel considerable distance to source of ignition and flash back
Vapors may form explosive mixtures with air
Most vapors are heavier than air. They will spread along the ground and collect in low or confined areas (sewers, basements, tanks)
Container explosion may occur under fire conditions or when heated
Fire may produce irritating, corrosive and/or toxic gases

Special Protective Actions for Firefighters**Specific Methods:**

Water mist may be used to cool closed containers. For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out.

Special Protective Equipment for Firefighters:

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

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures****Personal Precautions:**

Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protective equipment. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use spark-proof tools and explosion-proof equipment. In case of large spill, water spray or vapor suppressing foam may be used to reduce vapors, but may not prevent ignition in closed spaces.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up**Methods for containment**

Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up

Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE**Precautions for safe handling****Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from incompatible materials.

Safe Handling Advice

Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Keep away from heat and sources of ignition. Store in a segregated and approved area. Store away from incompatible materials.

Incompatible Materials:

Oxidizing agents. Bromine trifluoride. Strong bases. Reducing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters**National occupational exposure limits****United States**

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
2-Pentanone 107-87-9	200 ppm TWA 700 mg/m ³ TWA	150 ppm TWA 530 mg/m ³ TWA	150 ppm STEL	None

Canada

Components	Alberta	British Columbia	Ontario	Quebec
2-Pentanone 107-87-9	200 ppm TWA 705 mg/m ³ TWA 250 ppm STEL 881 mg/m ³ STEL	150 ppm TWA 250 ppm STEL	150 ppm STEL	150 ppm TWAEV 530 mg/m ³ TWAEV

Australia and Mexico

Components	Australia	Mexico
2-Pentanone 107-87-9	250 ppm STEL 881 mg/m ³ STEL 200 ppm TWA 705 mg/m ³ TWA	200 ppm TWA 700 mg/m ³ TWA

Appropriate engineering controls**Engineering measures to reduce exposure:**

Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment**Personal Protective Equipment**

- Eye protection:** Goggles.
- Skin and body protection:** Chemical resistant apron. Long sleeved clothing. Gloves.
- Respiratory protection:** Vapor respirator. Be sure to use an approved/certified respirator or equivalent.
- Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid.	Appearance: No information available	Color: Colorless.
Odor: Acetone-like.	Taste No information available	Formula: C5-H10-O
Molecular/Formula weight: 86.13	Flammability: No information available	Flash point (°C): 7
Flashpoint (°C/°F): 7 °C/44.6 °F	Flash Point Tested according to: Not available	Autoignition Temperature (°C/°F): 452 °/845.6 °F
Lower Explosion Limit (%): 1.5%	Upper Explosion Limit (%): 8.2%	pH: No information available
Melting point/range(°C/°F): -78 to -77 °C/-108.4 to -106.6 °F	Boiling point/range(°C/°F): 102 °C/215.6 °F	Decomposition temperature(°C/°F): No information available
Bulk density: No information available	Density (g/cm3): No information available	Specific gravity: 0.806-0.809
Vapor pressure @ 20°C (kPa): 3.6	Evaporation rate: No information available	Vapor density: 2.96
VOC content (g/L): No information available	Odor threshold (ppm): 11	Partition coefficient (n-octanol/water): 0.91
Viscosity: No information available	Miscibility: Miscible with alcohol Miscible with Ether	Solubility: Slightly soluble in Carbon Tetrachloride Soluble in Water Solubility in Water: 43 g/l at 25 °C

10. STABILITY AND REACTIVITY

Reactivity

Reactive with oxidizing agents
Reactive with reducing agents
Reacts with strong bases

Chemical stability

Stability:

Stable under recommended storage conditions

Possibility of Hazardous Reactions:

Hazardous polymerization does not occur

Conditions to avoid:

Heat. Ignition sources. Incompatible materials.

Incompatible Materials:

Oxidizing agents. Bromine trifluoride. Strong bases. Reducing agents.

Hazardous decomposition products:

No information available

Other Information

Corrosivity:

No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product code: P1019

Product name: 2-PENTANONE

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Principal Routes of Exposure:

Inhalation. Ingestion. Skin.

Acute Toxicity**Component Information***2-Pentanone - 107-87-9*

LD50/oral/rat = = 1600 mg/kg Oral LD50 Rat

LD50/oral/mouse = 1600 mg/kg

LD50/dermal/rat = 6480 mg/kg

LD50/dermal/rabbit = 6500 mg/kg

LC50/inhalation/rat = No information available

LC50/inhalation/mouse = 22000 mg/m³ 2 hr.

Other LD50 or LC50 information = 2000 ppm 4 hr. LCL (Lowest Lethal Concentration) Inhalation Rat

Product Information

LD50/oral/rat =

VALUE- Acute Tox Oral = 1600mg/kg

LD50/oral/mouse =

Value - Acute Tox Oral = 1600mg/kg

LD50/dermal/rabbit

VALUE-Acute Tox Dermal = 6500mg/kg

LD50/dermal/rat

VALUE -Acute Tox Dermal = 6480mg/kg

LC50/inhalation/rat

VALUE-Vapor = No information available

VALUE-Gas = No information available

VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse

VALUE-Vapor = No information available

VALUE - Gas = No information available

VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Causes skin irritation.

Eye Contact: Causes serious eye irritation. May cause conjunctivitis.

Inhalation Irritating to respiratory system. May cause nausea, vomiting. Symptoms may include coughing and wheezing, and shortness of breath. Inhalation of vapors may cause drowsiness and dizziness. Inhalation of high concentrations may cause central nervous system effects characterized by headache, dizziness, lightheadness, fainting, unconsciousness, coma. May cause muscle weakness. It may affect the liver. May affect the kidneys. It may affect the brain (degenerative changes).

Ingestion Harmful if swallowed. May cause digestive (gastrointestinal) tract irritation. May affect behavior/central nervous system (dizziness, headache). May cause fatigue. Ingestion may cause nausea, vomiting.

Aspiration hazard No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Prolonged or repeated skin contact can cause skin rash, dryness and redness
Prolonged or repeated inhalation can irritate the lungs causing coughing and/or shortness of breath

Sensitization: No information available

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic

Components	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
2-Pentanone	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Reproductive toxicity No data is available

Reproductive Effects: No information available

Developmental Effects: No information available

Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure Respiratory system. central nervous system.

STOT - repeated exposure No information available

Target Organs: Skin. Lungs.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Aquatic environment.

2-Pentanone - 107-87-9

Freshwater Fish Species Data: 1190 - 1290 mg/L LC50 Pimephales promelas 96 h flow-through 1

Persistence and degradability: No information available

Bioaccumulative potential: No information available

Mobility: No information available

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
2-Pentanone	None	None	None	None

14. TRANSPORT INFORMATION**DOT**

UN-No: UN1249
Proper Shipping Name: Methyl propyl ketone
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: II
ERG No: 127
Marine Pollutant: No data available
DOT RQ (lbs): No information available

Symbol(s):**TDG (Canada)**

UN-No: UN1249
Proper Shipping Name: Methyl propyl ketone
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: II
Description: No information available

ADR

UN-No: UN1249
Proper Shipping Name: Methyl propyl ketone
Hazard Class: 3
Packing Group: II
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available
CEFIC Tremcard No: No information available

IMO / IMDG

UN-No: UN1249
Proper Shipping Name: Methyl propyl ketone
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: II
Description: No information available
IMDG Page: No information available
Marine Pollutant: No information available
EMS: F-E
MFAG: No information available
Maximum Quantity: No information available

RID

UN-No: UN1249
Proper Shipping Name: Methyl propyl ketone
Hazard Class: 3
Subsidiary Risk: No information available

14. TRANSPORT INFORMATION

Packing Group: II
Classification Code: No information available
Description: No information available

ICAO

UN-No: UN1249
Proper Shipping Name: Methyl propyl ketone
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: II
Description: No information available

IATA

UN-No: UN1249
Proper Shipping Name: Methyl propyl ketone
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: II
ERG Code: 3L
Description: No information available

15. REGULATORY INFORMATION

International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
2-Pentanone	Present	Present KE-28009	Present	Present (2)-542	Present	Present	Present 203-528-1

U.S. Regulations

2-Pentanone

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 1292
Pennsylvania RTK: Present
Minnesota - Hazardous Substance List: Present
California Directors List of Hazardous Substances: Present

FDA - Direct Food Additives 21 CFR 172.515

FDA - 21 CFR - Total Food Additives 172.515

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
2-Pentanone	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting <i>de minimis</i>
2-Pentanone	None	None	None	None	None

U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
2-Pentanone	Not Applicable	Not Applicable

Canada

WHMIS hazard class:

Non-controlled

2-Pentanone

B2 D2B

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -
2-Pentanone	1 %

Inventory

Components	Canada (DSL)	Canada (NDSL)
2-Pentanone	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
2-Pentanone	Not listed	Not listed

EU Classification

R-phrase(s)

not determined (not applicable)

S -phrase(s)

none

Components	Classification	Concentration Limits:	Safety Phrases
2-Pentanone		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

None.

16. OTHER INFORMATION

Preparation Date: 1/29/2016
Revision Date: 1/29/2016
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet