



Specialized in chemicals

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Material Safety Data Sheet

5-Chloro-2-pentanone

Section 1: Chemical Product and Company Identification

Product Name: 5-Chloro-2-pentanone

CAS No.: 5891-21-4

Synonym: 5-Chloropentan-2-one ; 1-Chloro-4-pentanone ; 3-Chloropropyl methyl ketone

Chemical Formula: C₅H₉ClO

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Section 2: Composition and Information on Ingredients

Component	CAS No.	Weight %
5-Chloro-2-pentanone	5891-21-4	90

Section 3: Hazards Identification

Classification

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

Label Elements

Signal Word

Warning

Hazard Statements

Flammable liquid and vapor

Harmful if swallowed

Causes skin irritation

Causes serious eye irritation

May cause respiratory irritation



Precautionary Statements

Prevention

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Wear protective gloves/protective clothing/eye protection/face protection

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

Inhalation

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

Skin

If skin irritation occurs: Get medical advice/attention

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

Eyes

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

Ingestion

If swallowed: Call a poison center or doctor/physician if you feel unwell. Rinse mouth

Fire

In case of fire: Use CO₂, dry chemical, or foam for extinction

Storage

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

Store locked up

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None identified

Section 4: First Aid Measures

Eye Contact

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Do NOT allow victim to rub or keep eyes closed.

Skin Contact

Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Inhalation

Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Ingestion

Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Section 5: Fire and Explosion Data

Suitable Extinguishing Media Water spray. Carbon dioxide(CO2). Dry chemical.chemicalfoam.
Cool closed containers exposed to fire with water spray.

Unsuitable Extinguishing Media No information available

Flash Point 35°C / 95°F

Method No information available

Autoignition Temperature 440 °C / 824 °F

Explosion Limits

Upper No data available

Lower No data available

Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical

Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

Hazardous Combustion Products

Hydrogen chloride gas Carbon monoxide (CO) Carbon dioxide (CO2)

Protective Equipment and Precautions for Firefighters

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

NFPA	Health 2	Flammability 2	Instability 0	Physical hazards N/A
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Section 6: Accidental Release Measures	
Personal Precautions	Remove all sources of ignition. Take precautionary measures against static discharges.
Environmental Precautions	See Section 12 for additional ecological information.
Methods for Containment and Clean up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder,sawdust). Keep in suitable, containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Do not let this chemical enter the environment.

Section 7: Handling and Storage	
Handling	Avoid contact with skin and eyes. Do not breathe vapors or spray mist. Do not ingest. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use explosion-proof equipment. Use only non-sparking tools. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges.
Storage	Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from heat and sources of ignition. Flammables area. Keep container tightly closed in a dry and well-ventilated place.

Section 8: Exposure Controls/Personal Protection	
Exposure Guidelines	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Engineering Measures	Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.
Personal Protective Equipment	
Eye/face Protection	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory Protection	No protective equipment is needed under normal use conditions.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

Section 9: Physical and Chemical Properties

Physical State: Liquid

Appearance: Dark yellow

Odor:Odorless

Odor Threshold :No information available

pH: No information available

Melting Point/Range: No data available

Boiling Point/Range :172 - 175 °C / 341.6 - 347 °F @ 760 mmHg

Flash Point :35 °C / 95 °F

Evaporation Rate :No information available

Flammability (solid,gas): Not applicable

Flammability or explosive limits

Upper: No data available

Lower : No data available

Vapor Pressure: No information available

Vapor Density: 4.16

Relative Density 1.053

Solubility: No information available

Partition coefficient; n-octanol/water :No data available

Autoignition Temperature: 440 °C / 824 °F

Decomposition Temperature :No information available

Viscosity:No information available

Molecular Formula:C5 H9 Cl O

Molecular Weight :120.58

Section 10: Stability and Reactivity Data

Reactive Hazard: None known, based on information available

Stability: Stable under normal conditions.

Conditions to Avoid: Keep away from open flames, hot surfaces and sources of ignition. Incompatible products.

Incompatible Materials: Strong oxidizing agents

Hazardous Decomposition Products: Hydrogen chloride gas, Carbon monoxide (CO), Carbon dioxide (CO₂)

Hazardous Polymerization: No information available.

Hazardous Reactions: None under normal processing

Section 11: Toxicological Information

Acute Toxicity

Product Information

Oral LD50 Category 4. ATE = 300 - 2000 mg/kg.

Dermal LD50 Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

Vapor LC50 Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

Component Information						
Component	LD50 Oral	LD50 Dermal	LC50 Inhalation			
5-chloro-2-Pentanone	804 mg/kg(Rat)	Not listed	Not listed			
Toxicologically Synergistic	No information available					
Products						
<u>Delayed and immediate effects as well as chronic effects from short and long-term exposure</u>						
Irritation	No information available					
Sensitization	No information available					
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.					
Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
5-chloro-2-Pentanone	5891-21-4	Not listed	Not listed	Not listed	Not listed	Not listed
Mutagenic Effects	No information available					
Reproductive Effects	No information available.					
Developmental Effects	No information available.					
Teratogenicity	No information available.					
STOT- single exposure	Respiratory system					
STOT-repeated exposure	None known					
Aspiration hazard	No information available					
Symptoms/effects,both acute and delayed	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting					
Endocrine Disruptor Information	No information available					
Other Adverse Effects	The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.					

Section 12: Ecological Information	
<u>Ecotoxicity</u>	
Do not empty into drains.	
Persistence and Degradability	No information available
Bioaccumulation/ Accumulation	No information available.
Mobility	No information available.

Section 13: Disposal Considerations	
Waste Disposal Methods	Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Section 14: Transport Information	
<u>DOT</u>	
UN-No	UN1224
Hazard	Class 3
Packing Group	III
<u>TDG</u>	
UN-No	UN1224
Hazard	Class 3
Packing Group	III
<u>IATA</u>	
UN-No	UN1224
Proper Shipping Name	KETONES, LIQUID, N.O.S.
Hazard Class	Class 3
Packing Group	III
<u>IMDG/IMO</u>	
UN-No	UN1224
Proper Shipping Name	KETONES, LIQUID, N.O.S.
Hazard Class	Class 3
Packing Group	III

Section 15: Other Regulatory Information											
International Inventories											
Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
5-chloro-2-Pentanone	X	-	X	227-565-8	-	-	-	-	-	-	-
Legend:											
X - Listed											
E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.											
F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.											
N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.											
P - Indicates a commenced PMN substance											
R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.											
S - Indicates a substance that is identified in a proposed or final Significant New Use Rule											
T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.											
XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).											

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable
SARA 313 Not applicable

SARA 311/312 Hazardous Categorization

Acute Health Hazard Yes
Chronic Health Hazard No
Fire Hazard Yes
Sudden Release of Pressure Hazard No
Reactive Hazard No
Clean Water Act Not applicable
Clean Air Act Not applicable
OSHA Not applicable
CERCLA Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals
State Right-to-Know Not applicable

U.S. Department of Transportation

Reportable Quantity (RQ) N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product does not contain any DHS chemicals

Other International Regulations

Mexico - Grade No information available

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

WHMIS Hazard Class B2 Flammable liquid
D1B Toxic materials
D2B Toxic materials



Section 16: Other Information	
References	Not available.
Other Special Considerations	Not available.
Revision Date	10-Feb-2015
Version No.	20150210001

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall we m be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if we have been advised of the possibility of such damages.