



Material Safety Data Sheet

Acetyl acetone

MSDS# 00270

Section 1 - Chemical Product and Company Identification

MSDS Name: Acetyl acetone

Catalog Numbers: AC129960000, AC129960010, AC129960025, AC129960050, AC129962500, AC129965000

AC129965000, A25-500

Synonyms: 2,4-Pentanedione; Acetylacetone.

Company Identification: Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call: 201-796-7100

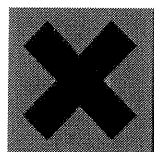
Emergency Number US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#: 123-54-6
Chemical Name: Pentadione
%: 100
EINECS#: 204-634-0

Hazard Symbols: XN



Risk Phrases: 10 22

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! Flammable liquid and vapor. May cause central nervous system depression. May cause fetal effects based upon animal studies. Harmful if swallowed or absorbed through the skin. Causes eye, skin, and respiratory tract irritation. Target Organs: Central nervous system.

Potential Health Effects

Eye: Causes eye irritation. May cause chemical conjunctivitis and corneal damage.

Skin: Causes skin irritation. Harmful if absorbed through the skin. Chronic exposure may cause chelation with iron and other soluble metals leading to deficiencies. Exposure to low concentrations may be cumulative. May cause irritation and dermatitis. May cause cyanosis of the extremities.

Ingestion: Harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause effects similar to those for inhalation exposure. Ingestion of large amounts may cause CNS depression.

Inhalation: Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. May cause respiratory tract irritation. Aspiration may lead to pulmonary edema. Vapors may cause dizziness or suffocation. May cause burning sensation in the chest.

Chronic: Animal studies have reported that fetal effects/abnormalities may occur when maternal toxicity is seen. Chronic exposure may cause chelation with iron and other soluble metals leading to deficiencies. Exposure to low concentrations may be cumulative. Laboratory experiments have resulted in mutagenic effects.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get

medical aid.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Call a poison control center. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

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

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire. Flammable liquid and vapor.

Extinguishing Media: For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water.

Autoignition Temperature: 340 deg C (644.00 deg F)

Flash Point: 34 deg C (93.20 deg F)

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: health: 2; flammability: 2; instability: 0;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. A vapor suppressing foam may be used to reduce vapors.

Section 7 - Handling and Storage

Handling: Use only in a well-ventilated area. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Do not ingest or inhale. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Pentadione	none listed	none listed	none listed

OSHA Vacated PELs: Pentadione: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

Exposure Limits

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Color: colorless or slight yellow

Odor: putrid odor

pH: Not available

Vapor Pressure: 6 mm Hg @ 20 deg C

Vapor Density: 3.5 (Air=1)

Evaporation Rate: 0.75 (n-butyl acetate=1)

Viscosity: Not available

Boiling Point: 139 - 141 deg C

Freezing/Melting Point: -23 deg C (-9.40°F)

Decomposition Temperature: Not available

Solubility in water: Soluble

Specific Gravity/Density: 0.973

Molecular Formula: C₅H₈O₂

Molecular Weight: 100.12

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, light, ignition sources, excess heat.

Incompatibilities with Other Materials: Oxidizing agents, strong reducing agents, strong bases.

Hazardous Decomposition Products: Carbon monoxide, carbon monoxide, carbon dioxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 123-54-6: SA1925000

RTECS:

CAS# 123-54-6: Draize test, rabbit, eye: 20 mg Severe;

Draize test, rabbit, skin: 11.2 mL/6H (Intermittent) Mild;

Draize test, rabbit, skin: 33.6 mL/6H (Intermittent) Moderate;

Draize test, rabbit, skin: 11.2 mL/2D (Intermittent) Moderate;

LD50/LC50:

Oral, mouse: LD50 = 951 mg/kg;

Oral, rat: LD50 = 55 mg/kg;

Oral, rat: LD50 = 55 mg/kg;

Skin, rabbit: LD50 = 810 uL/kg;

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Carcinogenicity: Pentadione - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: No information found.

Section 12 - Ecological Information

Ecotoxicity: Not available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: PENTANE-2,4-DIONE

Hazard Class: 3

UN Number: UN2310

Packing Group: III

Canada TDG

Shipping Name: PENTANE-2,4-DIONE

Hazard Class: 3.61
UN Number: UN2310
Packing Group: III

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

Risk Phrases:

R 10 Flammable.

R 22 Harmful if swallowed.

Safety Phrases:

S 21 When using do not smoke.

S 23 Do not inhale gas/fumes/vapour/spray.

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 123-54-6: 1

Canada

CAS# 123-54-6 is listed on Canada's DSL List

Canadian WHMIS Classifications: B2, D1B, D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 123-54-6 is listed on Canada's Ingredient Disclosure List

US Federal

TSCA

CAS# 123-54-6 is listed on the TSCA
Inventory.

Section 16 - Other Information

MSDS Creation Date: 6/25/1999

Revision #8 Date 7/20/2009

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 the company 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 the company has been advised of the possibility of such damages.

REVIEWED

DATE: 28 March 2012

Chuteford